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DEPARTMENT OF THE ARMY

Procurement Programs



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Committee Staff Procurement Backup Book FY 1998 / FY 1999 Budget Estimate WEAPONS AND TRACKED COMBAT VEHICLES

February 1997

FOR OBSERVE CORPORATE

APPROPRIATION

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Index for WEAPONS AND TRACKED COMBAT VEHICLES

Blin	Nomenclature	SSN	Filename	Page Number
-	ABRAMS TRNG DEV MOD	GA5208	30330141.98P	-
8	BRADLEY BASE SUSTAINMENT	G80718	32897141.98P,	3
က	BRADLEY FVS TRAINING DEVICES	G20900	33078141.98P	43
4	HAB TRAINING DEVICES	G84600	33084141.98P	46
5	BRADLEY FVS TRAINING DEVICES (MOD)	GZ2500	33450141.98P	20
9	FIELD ARTILLERY AMMUNITION SUPPORT VEH	G80100	33636114.98P	62
7	ARMORED COMBAT EARTHMOVER	G82303	35320144.98P	29
8	ABRAMS TANK TRAINING DEVICES	GB1300	36984141.98P	72
ᄋ	COMMAND & CONTROL VEHICLE	G84200	39850141.98P	78
=	CARRIER, MOD	GB1930	30496101.98P	86
12	FIST VEHICLE (MOD)	GZ2300	31284141.98P	101
5	BFVS SERIES (MOD)	GZ2400	31678141.98P	107
4	HOWITZER, MED SP FT 155MM M109A6 (MOD)	GA0400	32072114.98P	150
91	FAASV PIP TO FLEET	GA8010	33638114.98P	159
17	IMPROVED RECOVERY VEHICLE (M88 MOD)	GA0570	33700141.98P	168
18	BREACHER SYSTEM (MOD)	GZ3200	34500141.98P	175
19	HEAVY ASSAULT BRIDGE (HAB) SYS (MOD)	GZ3250	34520141.98P	179
20	M1 ABRAMS TANK (MOD)	GA0700	36406141.98P	187
21	ABRAMS UPGRADE PROGRAM	GA0750	36500141.98P	242
22	ABRAMS UPGRADE PROGRAM (Adv Proc)	GA0750	36501141.98P	253
23	MODIFICATIONS LESS THAN \$2.0M (TCV-WTCV)	GA0925	38376101.98P	258
24	ITEMS LESS THAN \$2.0M (TCV-WTCV)	GL3100	33334100.98P	264
52	PRODUCTION BASE SUPPORT (TCV-WTCV)	GA0050	35960144.98P	566
58	ARMOR MACHINE GUN, 7.62MM	G13000	32472100.98P	269
53	MACHINE GUN, 5.56MM (SAW)	G12900	35632100.98P	275
30	GRENADE LAUNCHER, AUTO, 40MM, MK19-3	G13400	36106100.98P	281
35	M16 RIFLE	G14900	37528100.98P	287
33	5.56 CARBINE M4	G14904	38198100.98P	293

Index for WEAPONS AND TRACKED COMBAT VEHICLES

Blin	Blin Nomenclature	SSN	Filename	Page Number
34	M4 CARBINE MODS	GB3007	33010117 9AP	000
35	MEDIUM MACHINE GUNS (MODS)	GZ1300	33030117 98P	214
36	M119 MODIFICATIONS	GC0401	33640100 98D	1 6
27	MAR DELEMODE	10100	100.00104000	321
6		GZ2800	36456117.98P	330
38	MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV)	GC0925	39280117.98P	342
39	ITEMS LESS THAN \$2.0M (WOCV-WTCV)	GL3200	31862100.98P	351
4	PRODUCTION BASE SUPPORT (WOCV-WTCV)	GC0050	33270144 98P	353
41	INDUSTRIAL PREPAREDNESS	GC0075	33400144 98P	356
42	SMALL ARMS (SOLDIER ENH PROG)	GC0076	34010117 98P	358
43	SPARES AND REPAIR PARTS (WTCV)	GE0150	34540107.98P	362



Appropriation: "WEAPONS & TRACKED COMBAT VEHICLES"

Activity: 1. **TRACKED COMBAT VEHICLES**

			(DOLS)				(THOUSANDS OF DOLLARS)	OF DOLL	ARS)		
NO.	ITEM NOMENCLATURE	٥	FY 98 UNIT		FY 96		FY 97		FY 98		FY 99
			COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
	TRACKED COMBAT VEHICLES										
-	ABRAMS TRNG DEV MOD (GA5208)				3,017		3,181		2,222		6,440
8	BRADLEY BASE SUSTAINMENT (G80718)	60			133,869		234,774		125,591		342,423
က	BRADLEY FVS TRAINING DEVICES (G20900)	∢					572		1,417		9,544
4	HAB TRAINING DEVICES (G84600)										398
ιΩ	BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)	∢			1,813		851				2,143
ø	FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)	∢		48	49,988	48	64,140				
7	ARMORED COMBAT EARTHMOVER (G82303)	∢				54	50,952				
ھ	ABRAMS TANK TRAINING DEVICES (GB1300)	∢			6,133		12,590		13,351		13,850
6	M1 ABRAMS TANK SERIES (MYP) (G82917)	٧			2,904						
9	COMMAND & CONTROL VEHICLE (G84200)	0	6,179,400			S	48,939	S	30,897	14	62,681
	SUB-ACTIVITY TOTAL				197,724		415,999		173,478		437,479
	MODIFICATION OF TRACKED COMBAT VEHICLES										
=	CARRIER, MOD (GB1930)	∢			47,958		42,988		20,244		34,021
12	FIST VEHICLE (MOD) (GZ2300)	8							14,656		16,169
13	BFVS SERIES (MOD) (GZ2400)	∢			93,101		119,037		61,232		46,640

DEPARTMENT OF THE ARMY FY 98/99 PROCUREMENT PROGRAM

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 1. "TRACKED COMBAT VEHICLES"

			(DOLS)				(THOUSANDS OF DOLLARS)	OF DOLL	4RS)		
N S	ITEM NOMENCLATURE	0	FY 98 UNIT		FY 96		FY 97		FY 98		FY 99
3			COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
ε	(2)	9	(4)	(2)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
4	HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)	∢			281,986		105,890		18,706		11,538
15	HOWITZER, MED SP FT 155MM M109A5 (MOD) (GA0401)	∢			126		130				
16	FAASV PIP TO FLEET (GA8010)	∢			6,434		13,814		1,922		438
4	IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)	80			54,363		55,687		28,601		40,229
18	BREACHER SYSTEM (MOD) (GZ3200)	В									10,444
19	HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)	60			14,611		51,322		42,205		51,950
20	M1 ABRAMS TANK (MOD) (GA0700)	∢			50,094		63,157		29,843		30,070
24	ABRAMS UPGRADE PROGRAM (GA0750) LESS: ADVANCE PROCURMENT (PY)	∢			320,515 -52,601		502,004 -297,218		587,714 -259,086		686,521 -266,228
					267,914		204,786		328,628		420,293
22	ABRAMS UPGRADE PROGRAM (GA0750) ADVANCE PROCUREMENT (CY)				297,218		259,086		266,228		270,691
23	MODIFICATIONS LESS THAN \$2.0M (TCV-WTCV) (GA0925)				562		1,049		1,030		
	SUB-ACTIVITY TOTAL				1,114,367		916,946		813,295		932,483
	SUPPORT EQUIPMENT AND FACILITIES										
24	ITEMS LESS THAN \$2.0M (TCV-WTCV) (GL3100)				147		141		139		137



Appropriation: "WEAPONS & TRACKED COMBAT VEHICLES"

Activity: 1. **TRACKED COMBAT VEHICLES**

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 2. **WEAPONS AND OTHER COMBAT VEHICLE!

			(DOLS)				(THOUSANDS OF DOLLARS)	OF DOLL	ARS)		
S S	ITEM NOMENCLATURE	Ω	FY 98 UNIT		FY 96		FY 97		FY 98		FY 99
			COST	QTY	COST	ΔTY	COST	OΤΥ	COST	OTV	COST
Ξ	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
	WEAPONS AND OTHER COMBAT VEHICLES										
27	PERSONAL DEFENSE WEAPON (ROLL) (GN0003)	∢		4,100	1,936						
28	ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)	∢				2,034	19,981			673	296'9
59	MACHINE GUN, 5.56MM (SAW) (G12900)	∢	13,716	9,430	27,585	3,802	12,092	406	5,569	1,570	4,887
30	GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)	4		1,500	32,812	2,150	33,168			720	13,075
3	MORTAR, 120MM (G02100)	<			2,911						
32	M16 RIFLE (G14900)	∢	450	31,056	13,067	15,583	6,546	11,297	5,089	21,077	9,152
33	5.56 CARBINE M4 (G14904)	∢	629	9,785	6,292	10,603	6,546	7,484	5,089	15,352	9,568
	SUB-ACTIVITY TOTAL				84,603		78,333		15,747		43,649
	MODIFICATION OF WEAPONS AND OTHER COMBAT VEHICLES										
34	M4 CARBINE MODS (GB3007)	<			006		2,114		2,152		5,318
35	MEDIUM MACHINE GUNS (MODS) (GZ1300)	⋖			6,292						
36	M119 MODIFICATIONS (GC0401)	4			71		-		4,977		4,969
37	M16 RIFLE MODS (GZ2800)	⋖			2,751		5,526		2,603		2,060





Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 2. **WEAPONS AND OTHER COMBAT VEHICLE!

NO. NOMENCLATURE (1) 38 MODIFICATIONS L (WOCV-WTCV) (G ***SUB-ACTIVITY TO ***SUPPORT EQUIF ***SUPPORT EQUIF (WOCV-WTCV) (G WOCV-WTCV) (G (WOCV-WTCV) (G WOCV-WTCV) (G									(2)		
MODIF (WOC' SUB-A **SUP! (WOC (WOC (WOC	- CALONE	₽	S L	Ĺ	FY 96		FY 97		FY 98		FY 99
MODIF (WOC) TEMS (WOC) (WOC) (WOC) (WOC)			COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
MODIF (WOC' SUB-A **SUP (WOC (WOC	(2)	<u>(e)</u>	(4)	(2)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
SUB-A **SUP! ITEMS (WOC PROD (WOC	MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV) (GC0925)				1,339		1,427		1,406		1,395
ITEMS (WOC PROD (WOC INDU!	SUB-ACTIVITY TOTAL				11,282		9,067		16,138		18,742
ITEMS (WOC (WOC INDU!	**SUPPORT EQUIPMENT AND FACILITIES**										
PROD (WOC	ITEMS LESS THAN \$2.0M (WOCV-WTCV) (GL3200)				1,113		1,767		1,215		1,202
INDUS	PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)				5,855		4,311		6,195		6,540
	INDUSTRIAL PREPAREDNESS (GC0075)				5,283		5,086		5,758		5,713
SMALL AF (GC0076)	SMALL ARMS (SOLDIER ENH PROG) (GC0076)				2,350		5,839		4,178		5,598
≯-B∩S	SUB-ACTIVITY TOTAL				14,601		17,003		17,346		19,053
ACTIV	ACTIVITY TOTAL				110,486		104,403		49,231		81,444
	·										

Activity: 3. **SPARES AND REPAIR PARTS**

DEPARTMENT OF THE ARMY FY 98/99 PROCUREMENT PROGRAM

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

		r	(DOLS)				(THOUSANDS OF DOLLARS)	OF DOLL	ARS)		
NO.	ITEM NOMENCLATURE	0	FY 98 UNIT		FY 96		FY 97		FY 98		FY 99
			COST	QTY	COST	ΔΤΥ	COST	ΩTY	COST	QTY	COST
Ξ	(2)	(3)	(4)	(2)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
	SPARES AND REPAIR PARTS										
43	SPARES AND REPAIR PARTS (WTCV) (GE0150)				25,279		20,280		20,622		14,413
	SUB-ACTIVITY TOTAL				25,279		20,280	-	20,622		14,413
	ACTIVITY TOTAL				25,279		20,280		20,622		14,413
	APPROPRIATION TOTAL				1,454,731		1,468,455		1,065,707		1,475,106
							-				

						DATE		
	BUD	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	ш			
PROCUREMEN	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	3T VEHS /Tracked Combat	Vehicles			ABRAMS TRNG D	ABRAMS TRNG DEV MOD (GA5208)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	3.0	3.2	2.2	6.4	2.8	5.7	5.9	6.0

DESCRIPTION: Funding provided will accomplish modifications to Abrams Training Devices required as a result of changes to the Abrams tanks or tank training requirements. These changes are hardware and software modifications to existing equipment to keep simulators abreast of developments in the Abrams Tank System. JUSTIFICATION: The program reflected here-in is structured to meet needs validated by the Abrams user community. Degradation of tank training will occur if these modifications are delayed or deleted. The intended sites for the Conduct of Fire Trainer (COFT) M60A3 to M1 Conversions are for the National Guard units. The average expected gunner and commander thoughput per year for the modified COFT is 3,016. The Conduct of Fire Trainer (COFT) M1 to M1A1, Optical Improvement (OIP) and Armament Enhancement Initiative (AEI) modifications are for units at FORSCOM, USAREUR, TRADOC, and National Guard.

BUDGET ITEM JUSTIFICATION SHEET		DATE February 1997
APPROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles		ABRAMS TRNG DEV MOD (GA5208)

Classification All PYs FY 1997 FY 1998 FY 2000 FY 200	OSIP No.	Description							
M60A3 to M1 Conversion Kits 5.4 0.0 0.0 0.0 0.0 0.0 0.0 Coll Modification to M14 COFTS AEI 1.7 0.0 0.0 0.0 0.0 0.0 0.0 M1 to M141 Modification Kits Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade Conduct of Fire Trainer MOd (M142 SEP Upgrade) 1.	Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
OIP Modification to M14I COFTS OIP Modification to M14I COFTS AEI 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-03-05-4430	M60A3 to M1 Conv	version Kits						
OIP Modification to M1A1 COFTS AEI 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 M1 to M1A1 Modification Kits Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade AGTS/SEP MOD AGTS/SEP MOD Close Combat Taciner Mod (M1A2 SEP Upgrade) Close Combat Taciner CCTTI/SEP Mod Close Combat Taciner CCTTI/SEP Mod Maintenance Training System (MTS) SEP Mod 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.3 1.8 2.7 5.9 11.4 3.2 2.2 6.4 2.8 5.7 5.9	Operational	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AEI 1.7 0.0 M1 to M14A Modification Kills Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade O.0 Conduct of Fire Trainer Mod (M14Z SEP Upgrade) O.0 Close Combat Tactical Trainer (CCTT)/SEP Mod O.0 Close Combat Tactical Trainer (CCTT)/SEP Mod O.0 Close Combat Tactical Trainer (M1S) SEP Mod O.0 Close Combat Tactical Trainer (M1S) SEP Mod O.0 Close Combat Tactical Trainer (M1S) SEP Mod O.0 O.0 Close Combat Tactical Trainer (M1S) SEP Mod O.0 O.0 Close Combat Tactical Trainer (M1S) SEP Mod O.0 O.0 O.0 O.0 O.0 O.0 O.0 O.	1-90-05-7877	OIP Modification to	M1A1 COFTS						
AGTS/SEP MOD Close Combat Tacinary CCTT//SEP Mod Close Combat Tacinary CSTT//SEP Mod Close Combat Tacinary CSTT//SEP Mod Adatabase Training System (MTS) SEP Mod O.0 Alt Adatabase Act Size Size Size Size Size Size Size Size	Operational	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Second State 1.7 0.0 0	1-93-05-4452	AEI					and the second s		
Modulation Kits Modulation	Operational	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade 0.0 0.0 0.0 0.0 0.0	1-92-06-4419	M1 to M1A1 Modifi	cation Kits		The second secon	· · · · · · · · · · · · · · · · · · ·			
Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade 0.8 0.8 0.8	Operational	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AGTS/SEP MOD	TBD1	Conduct of Fire Tra	ainer (COFT) Imag	ye Generator (IG) and Computer	Upgrade			
AGTS/SEP MOD AGTS/SEP MOD O.0 O.0 O.0 O.0 O.0 O.0 O.0 O	Operational	0.0	3.5	2.2	2.4	0.8	0.8	0.8	0.0
ATIONAL Tank Driver Trainer Mod (M1A2 SEP Upgrade) Idonal 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	TBD2	AGTS/SEP MOD							
Tank Driver Trainer Mod (M1A2 SEP Upgrade) Tank Driver Trainer Mod (M1A2 SEP Upgrade) Close Combat Tactical Trainer (CCTT)/SEP Mod ATIONAL ATIONAL ATIONAL Anintenance Training System (MTS) SEP Mod 0.0 0.0 0.3 1.8 0.0 11.4 3.2 2.2 6.4 2.8 5.7 5.9	OPERATIONAL	0.0	0.0	0.0	0.0	0.0	1.3	2.4	2.9
ATIONAL Close Combat Tactical Trainer (CCTT)/SEP Mod ATIONAL O.0 0.0 0.0 0.2 1.8 2.7 ATIONAL Maintenance Training System (MTS) SEP Mod ional 0.0 0.0 0.0 0.3 1.8 0.0 11.4 3.2 2.2 6.4 2.8 5.7 5.9	TBD3	Tank Driver Traine	r Mod (M1A2 SEF	Upgrade)					
Close Combat Tactical Trainer (CCTT)/SEP Mod 0.0 0.0 0.0 1.8 2.7 Maintenance Training System (MTS) SEP Mod ional 0.0 0.0 0.0 0.3 1.8 0.0 11.4 3.2 2.2 6.4 2.8 5.7 5.9	Operational	0.0	0.0	0.0	4.0	1.5	0.0	0.0	9.0
ATIONAL 0.0 0.0 0.0 0.2 1.8 2.7 Maintenance Training System (MTS) SEP Mod 0.0 0.3 1.8 0.0 ional 0.0 0.0 0.0 0.3 1.8 0.0 11.4 3.2 2.2 6.4 2.8 5.7 5.9	TBD4	Close Combat Tac	tical Trainer (CCT	T)/SEP Mod	Angelie in the case of the cas				
Maintenance Training System (MTS) SEP Mod	OPERATIONAL	0.0	0.0	0.0	0.0	0.2	1.8	2.7	2.5
ional 0.0 0.0 0.0 0.3 1.8 0.0 1.1 11.4 3.2 2.2 6.4 2.8 5.7 5.9	TBD5	Maintenance Train	ing System (MTS)	SEP Mod					
11.4 3.2 2.2 6.4 2.8 5.7 5.9	Operational	0.0	0.0	0.0	0.0	0.3	1.8	0.0	0.0
	Totals	114	0.00	00	4	80	7.7	r,	ď
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		-							





System/Modification No Pas Set for modification ABHAMS TRNG DEV MOD GA5208 M60A3 to M1 Conversion Kits OIP Modification to M1A1 COFTS AEI								February 1997	-
tem/Modification 3a Set for modification AAMS TRNG DEV MOD 5208 JA3 to M1 Conversion Kits Modification to M1A1 COFTS		_	(TOA, Dollars in Millions)	llars in l	Millions)				
tem/Modification * * 3a Set for modification * AAMS TRNG DEV MOD \$208 AAMS TOON'S WAND AAMS TRNG DEV MOD AMOdification to M1A1 COFTS	81								
3a Set for modification AAMS TRNG DEV MOD 5208 A3 to M1 Conversion Kits Modification to M1A1 COFTS	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
ABHAMS TRNG DEV MOD GA5208 M60A3 to M1 Conversion Kits OIP Modification to M1A1 COFTS									
GA5208 M60A3 to M1 Conversion Kits OIP Modification to M1A1 COFTS AEI									
M60A3 to M1 Conversion Kits OIP Modification to M1A1 COFTS AEI									
OIP Modification to M1A1 COFTS AEI	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
AEI	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M1 to M1A1 Modification Kits	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Conduct of Fire Trainer (COFT) Image Generator (IG) and Compute	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
AGTS/SEP MOD	0.0	0.0	0.0	0.0	0.0			0.0	0.0
Tank Driver Trainer Mod (M1A2 SEP Upgrade)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Close Combat Tactical Trainer (CCTT)/SEP Mod	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Maintenance Training System (MTS) SEP Mod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
					•				

	INDIVIDUAL MODIFICATION		Date	February 1997
MODIFICATION TITLE:	M60A3 to M1 Conversion Kits 1-03-05-4430			
MODELS OF SYSTEMS AFFECTED:	M60A3 COFTs.			
DESCRIPTION / JUSTIFICATION: The Conduct of Fire Trainer (C with ammunition consumption	ESCRIPTION / JUSTIFICATION: The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&S costs associated with ammunition consumption. The COFT is configured to the tank system it supports.	 gunnery training while redorts. 	ucing the O&S cost	ts associated
In support of the Abrams fielding sc The structure has changed to make M60A3 COFTs to M1 configuration.	In support of the Abrams fielding schedule, the conversion of M60A3 COFTs to M1 COFTs is required to meet the Army's new force structure. The structure has changed to make the M60 tank and training devices obsolete. This situation establishes an urgent requirement to convert the M60A3 COFTs to M1 configuration.	COFTs is required to meet his situation establishes an	the Army's new for urgent requirement	rce structure. t to convert the
Without this modification, one	Without this modification, one of the following most likelv will occur: 1) Negative training results from using outdated COFTs; 2) In lieu of using	ainina results from usina ou	utdated COFTs; 2)	In lieu of usina
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES:			
Preliminary Design Review:	IW:	PLANNED N/A	ACCOMPLISHED	
Critical Design Review:		N/A		

1096

4095

1096

4095

Initial Operational Test and Evaluation:

IPR Production Decision

TDP Available:

Development Test and Evaluation:

Contractor Test and Evaluation:

N/A

N/A

N/A

MODIFICATION TITLE (Com); M60A3 to M1 Conversion Kits 1-03-05-4430 FIVANCIAL PLAN; § it Millions FIVANCIAL PLAN; § it					Z	מואור	INDIVIDUAL MODIFICATION	FICAL	S						_	Date		Febru	February 1997	
FY 1996	MODIFICATION TITLE (Cont):		M60/	13 to M		ersion	Kits 1	-03-05	-4430											
The contraction of the contrac	FINANCIAL PLAN: (\$ in Millions)	FV 4006	Г																	
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4 ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 FY 1999: FY 1999: 677: FY 1999: FY 1999: 677: FY 1999: FY	Installation Kits		9.1																	1.6
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4 ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 FY 1999: FY 1999: FY 1999:	Equipment																			
4 ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 FY 1999: FY 199	Equipment Nonrecurring																			
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4 ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 FY 1998: FY 1999: FY 1998: FY 199	Interim Contractor Support																			
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4 ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 FY 1999: FY 1999: FY 1999:	Installation of Hardware																			
4 ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 FY 1999: FY 1999: FY 1999:	FY 1996 & Prior Eqpt Kits																			
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	Collifact Dates. Delivery Date:	<u>:</u>	1997:				FY 199						FY 1999							

Item No. 1 Page 6 of 30

installation costs are included within the hardware contract and cannot be broken out.



cation

	INDIVIDUAL MODIFICATION Date	February 1997
MODIFICATION TITLE:	OIP Modification to M1A1 COFTS 1-90-05-7877	
MODELS OF SYSTEMS AFFECTED:	M1A1 UCOFTs.	

DESCRIPTION / JUSTIFICATION:

This modification is required because the tank's optics now include filters to protect the crew from eye damage resulting from exposure to lasers. To accomodate the improved optics, a new switch, which induces the eye safe laser filters, has been added and the switch used to change the gunner's sight from high to low power has been redesigned and relocated. Training with the Conduct of Fire Trainers (COFTs) will enable the gunners and commanders to quickly find and use the correct switches by touch.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	N/A		
Critical Design Review:	N/A		
Contractor Test and Evaluation:	1096	1096	
Development Test and Evaluation:	N/A		
Initial Operational Test and Evaluation:	2096	3096	
IPR Production Decision	N/A		
TDP Available:	N/A		



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	INDIVIDUAL MODIFICATION Date Februa	February 1997
MODIFICATION TITLE:	AEI 1-93-05-4452	
MODELS OF SYSTEMS AFFECTED:	M1A1 UCOFTs.	
DESCRIPTION / JUSTIFICATION:		
The Armament Enhancement	The Armament Enhancement Initiative (AEI) 120mm tank round modification is required to change the configuration of the M1A1 COET to the	DET to the

benefit of training with the COFT is in training gunners and commanders on the capability of new rounds with special features without having to fire the actual rounds. Using the existing COFTs without this capability results in severe negative training. The COFT must maintain the same The Armament Enhancement Initiative (AEI), 120mm tank round modification is required to change the configuration of the M1A1 COFT to the latest configuration of the tank. Addition of new rounds causes switch changes and additional sight reticles in the tank. These changes affect training and can only be provided in the COFT. The COFT will require both hardware and software changes to provide this capability. A key configuration as the tank system it supports.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	N/A	
Critical Design Review:	N/A	
Contractor Test and Evaluation:	1096	10,96
Development Test and Evaluation:	N/A	
Initial Operational Test and Evaluation:	2096	3096
IPR Production Decision	N/A	
TDP Available:	N/A	

Affilions) FY 1996 and Prio Qty 100	AEI	AFI 1-93-05-4452	AAED									l					
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and Prio Otty 8	Г																
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Data																	
Training Equipment										~~.							
Support Equipment																	
Other																	
Interim Contractor Support	-						<u>-</u>			•							
Installation of Hardware																	
FY 1996 & Prior Eqpt Kits																	
FY 1997 Eqpt Kits																	
FY 1998 Eqpt Kits																	
FY 1999 Eqpt Kits																	
FY 2000 Eqpt kits																	
FY 2001 Eqpt kits																	
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FY 2003 Eqpt Kits																	
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ost	1.7		Ц														1.7
METHOD OF IMPLEMENTATION: Contractor Contract Dates:	actor FY 1997:		ADM	NISTRA	TIVE LEAF	ADMINISTRATIVE LEADTIME: FY 1998:		တ	Months		PRODUCTION LEADTIME: FY 1999:	ON LEAF	OTIME:	18	Months		
	FY 1997:				FY 1998:	38:					FY 1999;						



Installation costs are included within the hardware contract and cannot be broken out.

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	M1 to M1A1 Modification Kits 1-92-06-4419		
MODELS OF SYSTEMS AFFECTED:	M1 COFTs		
DESCRIPTION / JUSTIFICATION:			

The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&S costs associated with ammunition consumption. The COFT is configured to the tank system it supports.

army divisions, as well as selected National Guard units receiving the M1A1 tank have or will receive the modification. Additionally, the Armor In support of the Abrams fielding schedule, the M1 to M1A1 COFT modification is required to meet the Army's new force structure. All active Reserve Component training, be modified (hardware and software) to support basic and advance training of gunners and commanders. This School requires all M1A1 ICOFTs (four COFT crew stations), except for one standard M1 ICOFT and one linked M1 ICOFT used to provide situation establishes a requirement to upgrade the Armor School's M1 ICOFTs to the M1A1 capability.

EVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	G NA	ACCOMPLISHED
Preliminary Design Review:	N/A	
Critical Design Review:	N/A	
Contractor Test and Evaluation:	4097	
Development Test and Evaluation:	N/A	
Inital Operational Test and Evaluation:	1098	
IPR Production Decision	N/A	
TDP Available:.	N/A	



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FY 2002		
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Outputs		
FY 2000		
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FY 2002		
FY 2003		
Remarks:		
Installation costs are included within the hardware contract and cannot be broken out.		
Funds are for software modifications to provide ICOFT capability to M1A1 UCOFTs and MCOFTs within the reserve components.	components.	

Exhibit P-3a Individual Modification

	INDIVIDUAL MODIFICATION Date February 1997	y 1997
MODIFICATION TITLE:	Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade TBD1	
MODELS OF SYSTEMS AFFECTED:	M1 and M1A1 COFTs	
DESCRIPTION / ILISTIFICATION:		

The Image Generator (IG) and computer subsystems that are presently being used in the COFTs are approaching obsolescence. It is becoming software changes and more cost effective parts and maintenance. This will position the COFT fleet to support tank units and institutions beyond replacement parts are becoming more expensive or entirely not available on the commercial market. Likewise, the software designed to run on more difficult to obtain parts for these IGs since they are of the early 1980's design. Sustainability is becoming a major issue as repair and these components is also difficult to sustain. The goal is to obtain a replacement IG and computer that will provide for cheaper and easier the year 2000.

	ACCOMPLISHED							
	PLANNED N/A	N/A	3098	N/A	4098	N/A	N/A	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	Preliminary Design Review:	Critical Design Review:	Contractor Test and Evaluation:	Development Test and Evaluation:	Inital Operational Test and Evaluation:	iPR Production Decision	TDP Available:	

Exhibit P-3a Individua

				INDIN	DUAL A	INDIVIDUAL MODIFICATION	ATION						Date		Fe	February 1997	
MODIFICATION TITLE (Cont):	0	Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Upgrade TBD1	of Fire	Traine	00)	FT) Im	age Ge	nerato	r (IG) a	and Co	mpute	. Upgra	ade TBE	7			
FINANCIAL PLAN: (\$ in Millions)	FY 1996																
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RDT&E																	
PROCUREMENT					-												
Kit Quantity																	
Installation Kits				-	0.1	16	2.4	16 0.8	9 16	0.8	16	0.8				65	
Installation Kits Nonrecurring			3.2		2.1												5.3
Equipment																	
Equipment Nonrecurring																	
Engineering Change Orders	-																
Data			-														
Training Equipment																	
Support Equipment																	
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Interim Contractor Support																	
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Installation of Hardware						,											
FY 1996 & Prior Eqpt Kits									_								
FY 1997 Eqpt Kits																	
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FY 2002 Eqpt kits																	
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Total Installation Cost																	
Total Procurement Cost			3.2		2.2		2.4	0.8	8	0.8		9.0					10.2
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FY 2003										İ				8												
Remarks:																										
Installation costs are included within the hardware contract and cannot be broken out.	re included	within t	he hard	Jware	contract	t and ca	annot b	e broke	n out.																	
Software block upgrades are included in these costs.	graces are ii	Ciude	am me	Se cos	ŝ																					



MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System DESCRIPTION / JUSTIFICATION: DESCRIPTION / JUSTIFICATION: MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Development Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: JODE Available: AGONS AG	AGTS/SEP MOD TBD2 AODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System AODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System DESCRIPTION / JUSTIFICATION: DESCRIPTION / JUSTIFICATION: The State of the M1A2. Description to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. Development STATUS / MAJOR DEVELOPMENT MILESTONES: Demples Preliminary Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: TDP Available: A003 TDP Available: A003 A003	AGTS/SEP MOD TBD2 MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery T DESCRIPTION / JUSTIFICATION: AR 350-38 requires Program Managers to program and buc modifications to the system they support. This funding will recent SEP changes to the M1A2. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	y Training System budget funds to support changes to fielded training modify existing M1A2 Advanced Gunnery Tra	aining devices resulting from changes or aining Simulators to represent the most
MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System DESCRIPTION JUSTIFICATION: AR 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. PLANNED PEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Preliminary Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: 1003 TOP Available: 4003 TOP Available:	WODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System PESCRIPTION Juistifications: AR 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. PEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Preliminary Design Review: Contract Design Review: Contract Design Review: Contract Design Review: ACCOMPLISHED A	ACDELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery T DESCRIPTION / JUSTIFICATION: AR 350-38 requires Program Managers to program and buc modifications to the system they support. This funding will recent SEP changes to the M1A2. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	y Training System budget funds to support changes to fielded training modify existing M1A2 Advanced Gunnery Transmill modify existing M1A2 Advanced Gunnery Transmill modify existing m1A2 Advanced Gunnery Transmill modify existing m1A2 Advanced Gunnery Transmill modify existing m1A2 Advanced Gunnery Transmill modify existing m1A2 Advanced Gunnery Transmill modify existing m1A2 Advanced Gunnery Transmill modify existing m1A2 Advanced Gunnery Transmill m1A2 Advanced Gunnery T	aining devices resulting from changes or aining Simulators to represent the most
DESCRIPTION / JUSTIFICATION: AR 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. Examples Preliminary Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: TDP Available: 4003 4003	AR 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing MIA2. Advanced Gunnery Training Simulators to represent the most recent SEP changes to the MIA2. BENDELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: READINGS Preliminary Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: 1000 1	AR 350-38 requires Program Managers to program and buc modifications to the system they support. This funding will recent SEP changes to the M1A2. Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	oudget funds to support changes to fielded training modify existing M1A2 Advanced Gunnery Tra	ing devices resulting from changes or aining Simulators to represent the most
AR 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Initial Operational Test and Evaluation: Preliminary Design Review: 3003 4003 TDP Availables: 4003	AR 350-38 requires Program Managers to program and budget funds to support changes to fleided training devices resulting from changes or modifications to the system they support. This funding will modify existing MTA2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the MTA2. Ever. OPPLEADED PROFILE MAJOR DEVELOPMENT MILESTONES: Ever. Oritical Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: TDP Available: AD03 TDP Available: AD03	DESCRIPTION / JUSTIFICATION: AR 350-38 requires Program Managers to program and bud modifications to the system they support. This funding will recent SEP changes to the M1A2. Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	oudget funds to support changes to fielded training modify existing M1A2 Advanced Gunnery Tra	aining Simulators to represent the most
AR 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. Perent SEP changes to the M1A2. PLANNED PLANNED ACCOMPLISHED	AFI 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. Examples Examples Preliminary Design Review: Critical Design Review: Contractor Tast and Evaluation: Development Test and Evaluation: Development Test and Evaluation: The Production Decision TDP Availables: Adors 4003 TDP Availables:	AR 350-38 requires Program Managers to program and bud modifications to the system they support. This funding will recent SEP changes to the M1A2. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	budget funds to support changes to fielded training modify existing M1A2 Advanced Gunnery Training modify existing M1A2 Advanced Gunnery Training modify existing M1A2 Advanced Gunnery Training modify existing modification modified mo	aining Simulators to represent the most
3Q02 3Q03 3Q03 4Q03 4Q03	3Q01 3Q02 3Q03 3Q03 4Q03 4Q03	DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	PLANNED 3Q01	ACCOMPLISHED
## PLANNED 3Q01 3Q02 3Q03 3Q03 4Q03 4Q03	3Q02 3Q02 3Q03 3Q03 4Q03 4Q03	DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	PLANNED 3Q01	ACCOMPLISHED
3Q01 3Q02 3Q03 3Q03 4Q03 4Q03	3Q01 3Q02 3Q03 3Q03 4Q03 4Q03	Examples Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:	PLANNED 3Q01	ACCOMPLISHED
		Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation:		
		Contractor Test and Evaluation: Development Test and Evaluation:	3Q02	
		Development Test and Evaluation:	3003	
			3003	
Decision	Decision	inital Operational Test and Evaluation:	4003	
		IPR Production Decision	4003	
		TDP Available:	4003	



FY 1996 & Prior																	-	replacely 1897						
	FY 1997	26			FY 1998	98			FY 1999	66			FY 2000	9			FY 2001	101						
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Inputs																								
FY 1996 & Prior							-																	
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Outputs																								
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Inputs																								
FY 2000																								
FY 2001																								
FY 2002																								
FY 2003													2											8
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Outputs																								
FY 2000																								
FY 2001																								
FY 2002																								
FY 2003																	2							
Remarks:																								

	INDIVIDUAL MODIFICATION Date February 1997	
MODIFICATION TITLE:	Tank Driver Trainer Mod (M1A2 SEP Upgrade) TBD3	
MODELS OF SYSTEMS AFFECTED:	M1A1 Tank Driver Trainer	
DESCRIPTION / JUSTIFICATION:		
The Tank Driver Trainer (TDT) simulates actual simulated environments, terrain and situations w M1A2 driver's compartment and tasks are signifi Armor School to match projected throughput of s	The Tank Driver Trainer (TDT) simulates actual tank performance for beginner and transitioning drivers. It provides a range of motion and simulated environments, terrain and situations which are difficult or impossible for the driver to experience in normal training or operations. The M1A2 driver's compartment and tasks are significantly different from the M1A1. This project upgrades existing M1A1 Tank Driver Trainers at the Armor School to match projected throughput of students as more M1A2s enter the field.	rhe t the

	e e e e e e e e e e e e e e e e e e e	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	N/A	
Critical Design Review:	N/A	
Contractor Test and Evaluation:	3000	
Development Test and Evaluation:	N/A	
Inital Operational Test and Evaluation:	4000	
IPR Production Decision	N/A	
TDP Available:	N/A	

				Z	<i>i</i> ndivic	AL MOE	INDIVIDUAL MODIFICATION	NO							Date		Februs	February 1997	
MODIFICATION TITLE (Cont):	-	ank D	river 1	raine	Mod .	(M1A2	Tank Driver Trainer Mod (M1A2 SEP Upgrade) TBD3	Upgra	de) TE	3D3									
FINANCIAL PLAN: (\$ in Millions)	4 400	_																	
	and Prior	FY	FY 1997	FY	FY 1998	FY	FY 1999	FY2	FY 2000	FY 2001	100	FY 2002	200	FY 2003	600	TC	0	TOTAL	AL
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RDT&E																			
PROCUREMENT	-	***																	
Installation Kits						T-	.5.	-	1.5					-	9.0			ო	3.6
Installation Kits Nonrecurring							2.5												αi
Equipment	-															_			
Engineering Change Orders																			
Data																			
Training Equipment	<u></u>																		
Support Equipment																			
Other																			
Intenim Contractor Support																			
Installation of Hardware					,											-			
FY 1996 & Prior Eqpt Kits																			
FY 1997 Eqpt -: Nils																			
FY 1999 Eqpt Kits	-																		
FY 2000 Eqpt kits						w · · · ·													
FY 2001 Eqpt kits																			
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits																			
(FY(1C) Eqpt (XX Kits) Total Installation Cost																			
Total Procurement Cost							4.0		1.5						9.0				6.1
METHOD OF IMPLEMENTATION:				ADMIL	VISTRA	TIVE LE	ADMINISTRATIVE LEADTIME:	ńi	9	Months		PRODU	JCTION	PRODUCTION LEADTIME:	IME	8	Months		
Contract Dates:	FY 1997: FY 1997:	37:				FY 1998: FY 1998:	98: 98:					FY 1999: FY 1999:		Σທ	Mar 99 Sep 01				
Delivery Date.																			





	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Close Combat Tactical Trainer (CCTT)/SEP Mod TBD4)4	
MODELS OF SYSTEMS AFFECTED:	Close Combat Tactical Trainer (CCTT)		
DESCRIPTION / JUSTIFICATION:			
AR 350-38 requires Program Manager to program modifications to the system they support. This fur SEP changes to the M1A2.	AR 350-38 requires Program Manager to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing Close Combat Tactical Trainer modules to represent the most recent SEP changes to the M1A2.	and budget funds to support changes to fielded training devices resulting from changes or iding will modify existing Close Combat Tactical Trainer modules to represent the most rec	n changes or the most recent
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
Examples Preliminary Design Review:		PLANNED ACCOMPLISHED 3Q01	
Critical Design Review:		4001	
Contractor Test and Evaluation:	iluation:	3002	
Development Test and Evaluation:	evaluation:	3002	
Inital Operational Test and Evaluation:	nd Evaluation:	4002	
IPR Production Decision		4002	
TDP Available:		4002	



ification

FY	₽ <u>₽</u>	<u>0</u>	Close Combat Tactical Hamer (CCTT)/SEF Mod LDD4 96 FY 1997 FY 1998 FY 1998 FY 1998 FY 1998 FY 1997 FY 1998 FY	1 action 37	4 tal		FY 1998	4	=	F 54	FY 1999	41	ન	FY 2000		41		FY 2001	S. S. S. S. S. S. S. S. S. S. S. S. S. S	41			Total
Inputs FY 1996 & Prior FY 1997 FY 1999 FY 1999																							
Outputs FY 1996 & Prior FY 1997 FY 1998 FY 1999																							
		π -	FY 2000	ဗ	4	FY.	FY 2001	က	4	FY 2002	2 3	4	-	FY 2003	е е	4	μ-	FY 2004	ო	4	FY 2005	2 3	4 Total
Inputs FY 2000																							
FY 2001 FY 2002									4	-													14
FY 2003							í						80										80
FY 2000																							
FY 2001																							
FY 2002												4				8							4 8
Remarks: Installation costs are included within the hardware contract and cannot be broken out.	tre included w	Ithin th	e hardw	are con	tract an	d canno	of be bro	- yken out															

	INDIVIDUAL MODIFICATION		Date February 1997
MODIFICATION TITLE:	Maintenance Training System (MTS) SEP Mod TBD5	D5	
MODELS OF SYSTEMS AFFECTED:	M1A2 Maintenance Trainers		
DESCRIPTION / JUSTIFICATION:			
AR 350-38 requires Program Managers to progra modifications to the system they support. This fu SEP changes to the M1A2.	AR 350-38 requires Program Managers to program and budget funds to support changes to fielded training devices resulting from changes or modifications to the system they support. This funding will modify existing M1A2 Maintenance Training Systems to represent the most recent SEP changes to the M1A2.	anges to fielded training devic laintenance Training Systems	ces'resulting from changes or s to represent the most recent
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples	VELOPMENT MILESTONES:	DI ANNED	GENERAL
Preliminary Design Review:	w:		
Critical Design Review:		3001	
Contractor Test and Evaluation:	uation:	3001	
Development Test and Evaluation:	/aluation:	3001	
Inital Operational Test and Evaluation:	d Evaluation:	4001	
IPR Production Decision		4Q01	
TDP Avallable:		4Q01	

				=	IDIVIDU,	AL MOD	INDIVIDUAL MODIFICATION	NO						Date			February 1997	97	
MODIFICATION TITLE (Cont):		Maintenance	nance		ling Sy	stem (Training System (MTS) SEP Mod TBD5	SEP M	lod TB	105									
FINANCIAL PLAN: (\$ in Millions)	FY 1996	۲																	
	and Prior	Ā	FY 1997	E	FY 1998	FY	FY 1999	FY 2000	000	FY 2001	100	FY 2002	02	FY 2003	-	TC	Н	TOTAL	
	Oty \$	ğ	€9	ð	69	Öţ	€9	Qty	€9	φ	69	O _t	€9	Of Si	8	αfy	8	QtA	€
PROCUREMENT Kit Quantity Installation Kits Installation Kits					,				0.3	34	1.0							34	1.0
Equipment Equipment Nonrecurring																			
Engineering Change Orders Data																<u>-</u>			
Training Equipment				·														<u> </u>	
Other																	<u>.</u>		
Interim Contractor Support	-																		
Installation of Hardware FY 1996 & Prior Eqpt Kits																			
FY 1997 Eqpt Kits	,																		
FY 1998 Eqpt Kits						-		~											
FY 1999 Eqpt Kits																			
FY 2001 Eqpt Kits																			
FY 2002 Eqpt Kits																			
FY 2003 Eqpt Kits																			
(FY(TC) Eqpt (xx kits)																+			
Total Installation Cost															1				
Total Procurement Cost			_						0.3		1.8				+	-		-	2.1
METHOD OF IMPLEMENTATION: Contractor	V: Contractor			ADM	INISTRA	TIVE LE	ADMINISTRATIVE LEADTIME:	ņ;	9	Months		PRODU	CTION	PRODUCTION LEADTIME:		15 Mo	Months		
Contract Dates:	FY 1997:	FY 1997: EV 1007:				FY 1998:	98:					FY 1999: FY 1999:							
Delivery Date:		321.				2	.00					2221							

Item No. 1 Page 30 of 30



							DATE				
	6 2	BUDGET ITEM JUST	M JUSTIFICA	<i>IIFICATION SHEET</i>	.			February 1997	ry 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
PROCUREME	UT OF WPNS & TRK	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combal	cked Combat Vehicles	ęź			æ	BRADLEY BASE SUSTAINMENT (G80718)	TAINMENT (G8071	(8)	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	414	102	80	18	78	122	154	128	131	936	2163
COST (in millions)	456.2	133.9	234.8	125.6	342.4	370.0	452.3	376.2	6'886	2782.9	5663.2
Initial Spares (in millions)	12.5	5.2	9.3	6.0	1.5	1.9	1.4	4.1	4.1	57.2	97.5
Total (in millions)	468.7	139.1	244.1	125.9	343.9	371.9	453.7	380.3	393.0	2840.1	5760.7
Unit Cost (in millions)	1.1	1.4	3.1	7.0	4.4	3.0	2.9	3.0	3.0	3.0	2.7

DESCRIPTION: The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, provide mobile protected transport of an infantry squad to technology in the areas of command and control, lethality, survivability, and sustainability required to defeat current and future threat forces while critical points on the battlefield, and perform cavalry scout and other claimant missions in the 21 st century. Upgrades in this program include advanced the production gap until the introduction of the A3 upgrade vehicles. FY98 marks the second production year of the A3 configuration. The upgraded A3 remaining operationally compatible with the main battle tank.

communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactrued in the JUSTIFICATION: The FY98 Budget will provide the second year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.

Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers and 35 A2-A3's in FY97, and A3's thereafter.

WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLENO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vahicles	T ACTIVITY T OF WPI Tacked Co	VS & TRKD CN	ABT VEHS/1/	B. WEAPON BRADLE	FY BASE SUSTAII	WEAPON BRADLEY BASE SUSTAINMENT (M2A2/) (G80716)		C. MANUFACTURER NAME		D. DATE Febr	February 1997
WTCV	Q		FY 96	FY 96		FY 97			FY 98			FY 99	
ents	CD	_	Qfy	UnitCost	TotalCost	Oly Oly	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Oty	UnitCost
		\$000	Each	\$000	\$000	Each	000\$	\$000	Each	\$000	\$000	Each	\$000
1. VEHICLE 2. T2SS		61559	105	586	23059	45	512						
3. Engine		4965	105	47	2250	45	50						
4. Track		1935	50 20 20 20 20 20 20 20 20 20 20 20 20 20	18	829	45	18						
6. Other GFE (Bewan) 7. Other GFE (Reman)		10926	105	104	4992	4 6	111	440	<u></u>				
7. STINGER RIES					1/2/0	n n	99						
SUBTOTAL		96561			51020								
8. Govt Test & Eval 9. Engineering-Contractor		16093			3280			4100			1880		
10. Engineering-Government 11. Project Management Admin 12. Fielding 13. Reimbursable Matrix Supt		4303 1754 6965 1933			7478			3166			7714		
SUBTOTAL		31699			10758			7266			14014		
13. PSE		5609			700								
TOTAL		133869			62478			7266			14014		

	BUDGET PROCUREMENT HISTORY AND	PLANN	RY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	76
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM	C. P-1 ITEM NOMENCLATURE	RE			
PROCUREMENT OF WPN	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles	nbat Vehicles				BRADLEY BAS	BRADLEY BASE SUSTAINMENT (M2A2/) (G80716)	(M2A2) ((180716)	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY Each	UNIT COST	SPECS AVAIL NOW	SPEC IF REV REO'D	F YES W/A
1. VEHICLE FY XX FY 96 FY 97	UDLP, York PA	SS/FFP	ТАСОМ	Jan-96 Apr-97	May-97 Jun-98	105 45	586 512		0 S	
2. T2SS FY XX FY 96	HAC, LaGrange GA	SS/FFP	АМСОМ	Feb-96	Mar-97	75	128	YES	Q Q	
3. Engine FY XX FY 96 FY 97	Cummins, Columbus, IN	SS/FFP	TACOM	Jan-96 Apr-97	Mar-96 Feb-98	105	47	YES	0 0	
4. Track FY XX FY 96 FY 97	Goodyear, Akron OH TBD	C/FFP	TACOM	Feb-96 Apr-97	Feb-97 Feb-98	105	8 8	YES	0 0	
REMARKS:										



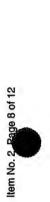
						P-1 ITEM NOMENCLATURE	NOME	Y CLA	OHE OHE										à	DATE		1					
FY 98 / 99 BUDGET PRODUCTION SCHEDUL	司	KOIU	SCHEDU	ш	ı				BRADLEY BASE SUSTAINMENT (MZAZI) (GB0716)	EV BA	ISE SU	STAIN	MEN	(M2A	27) (GB	07.16)	١	ı	\dashv		Fe	9	February 1997	1997		t	1
3	-		PROC	ACCEP.	BAL				LISC	riscal rear 90		So Calendar Year 96	ar Ye	ar 9	7,			H		200	Caler	dar	Calendar Year 97	16			J 4
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	_	FY 97			45																<						45
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WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLENO PROCUREMENT OF WPNS & TR	ET ACTIVITY ENT OF WE	TITLE/NO NS & TRKD C	A APPN/BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS/1/	B. WEAPON BRADL	EY BASE SUS	WEAPON BRADLEY BASE SUSTAINMENT (M2A3)		C. MANUFACTURER NAME		D. DATE Febru	TE February 1997
WTCV	Q		FY 96	FY 96	3	FY 97	(G80717)		FY 98			FY 99	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	ð	UnitCost	TotalCost	Q.	UnitCost
		\$000	Each	000\$	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Vehicle					65779	32	1879	36280	8 5	2016	147645	78	1893
					37629	33.5	1075	12171	<u> </u>	676	51566	78	661
4. Officer Green					1683	ς, (2)	84	7	20	29	4921	2	93
SUBTOTAL					139603	32	3989	66537	<u>®</u>	3697	269606	78	3456
					6981			9526			12897		
/. Project Management Administration8. Reimbursable Matrix Support9. Test and Evaluation					1973 1973 1082			1786 2202 2640	···		1824 2249 2095		
SUBTOTAL					20047			41703			46966		
10.Cummins Engine Life-of-Type (LOT) Buy 11.Peculiar Support Equipment 12.Fielding					8038	160	20	2200			2095 9742		
TOTAL					172296			118325			328409		
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BUDGET PI	BUDGET PROCUREMENT HISTORY ANI	O PLANNI	RY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	2
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	RE			T
PROCUREMENT OF W	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Co.	Tracked Combat Vehicles				BRADLEY BA	BRADLEY BASE SUSTAINMENT (M2A3) (G80717)	IT (M2A3) (380717)	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAIL	SPEC IF Y	F YES W/A
1. Vehicle FY XX FY 97 FY 98 FY 99	UDLP YORK PA	SS/FFP	TACOM	Jun-97 May-98 Dec-98	Oct-98 Jun-99 May-00	35 18 78	1879 2016 1893		000	
2. IBAS FY XX FY 97 FY 98 FY 99	TEXAS INSTRUMENTS DALLAS TEXAS; HAC GEORGIA	C/FFP	MICOM	Jul-97 Jun-98 Jan-99	Jul-98 Mar-99 Feb-00	35 18 78	986 943 839	YES YES YES	999	
3. FLIR FY XX FY 97 FY 98 FY 99	TEXAS INSTRUMENTS DALLAS TEXAS	SS/FFP NVL	NV.	Mar-97 Jan-98 Jan-99	Apr-98 Jan-99 Dec-99	35 18 78	1075 676 661	YES YES YES	0 0 0	
HEMARKS:										



	3	10120	1100				P-1 ITEM	P-1 ITEM NOMENCLATURE	CLATU	URE	200	0110	TAINI	TIVE	10000	2000)	Ę			DATE			1	F-6-1	2			
	╪		1	PROC ,	ACCEP.	BAL	l	l	ì	Fiscal Year 96	Yea	r 96						ı	١		cal	Fiscal Year 97	76	6.6		l	Ľ	T
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1. Vehicle											Н						H	Н	Ц									
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Exhibit P-21 Product

				!		a.	P-1 ITEM NOMENCLATURE	NOME	VCLAT	URE		1					Î			Ī	DATE				ì	ļ			
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NOTE USE PLAN / ACTUAL Tracked Combat Vahicies P-1 ITEM NOMENCIATURE	FLORMENT AND TEST STATUS	APPROPRIATION 20 1. CURRENT DEVELOPMENT AND T			Februs	February 1997		DD-COMP(AR)1092	92
Tracked Combat Vehicles BRADLEY BASE SUSTAINMENT (380718)	Tracked Combat Vaholos Tracked Combat Vaholos Tracked Combat Vaholos Tracked Combat Vaholos Tracked Combat Vaholos SCHEDULE DAYE SCHEDULE DAYE CUMPRENT LAST PRET LAST	20. 1. CURRENT DEVELOPMENT AND 1		ACTIVITY	P.1 ITEM NOMEN	CLATURE			
CUBRENT CAST RPTD REASON FOR DELAY CUBRENT CAST RPTD REASON FOR DELAY CUBRENT CAST RPTD CAST RPT	COMPRISE SOMEDILE DATE SOMEDILE DATE	1. CURRENT DEVELOPMENT AND 1	:040	Tracked Combat Vehicles		BRADLEY B	3ASE SUSTAINME	ENT (G80718)	
CUBRENT LAST RPTD REASON FOR DELAY (1) (2) (2) (2) (3) (4)	CURRENT LAST RPTD FEASON CORPORENT LAST RPTD CORPORENT		TEST STATUS						
CURRENT LAST RPTD REASON FOR DELAY CURRENT LAST RPTD (1) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	CUMPENT LAST PRINT LAST P						SCHEDULE DATE	E	
PLAN / ACTUAL	COLOR COLO				CURRENT	LAST RPTD	E	REASON FOR DEL	AY*
PLAN / ACTUAL	ACCOMPONENTE PLAN / ACTUAL				(1)	(2)		(3)	
PLAN / ACTUAL Mar.99 Mar.99 Inv.99 Nov.99 Inv.99	THE TEST & EVIL, (LOTAE) PLAN / ACTUAL MR1-99 MAC-99 MAC	a. DEV TEST & EVAL (DT&E)		PLAN / ACTUAL	Oct-97	Oct-97			
PLAN / ACTUAL	The Early (OTAE)	3. INITIAL OPER TEST & EVAL (IOT&	&E)	PLAN / ACTUAL	Mar-99	Mar-99	-		
Nov-89 N	THE OF TECH DATA PKG (TDP)	. OPER TEST & EVAL (OT&E)		PLAN / ACTUAL	N/A	N/A			
OF EQUIPMENT TO BE REPLACED 1997 1998 1999 1997 1998 1999	The mode of the property of	I. AVAIL DATE OF TECH DATA PKG	(TDP)		Nov-99	Nov-99			
OF EQUIPMENT TO BE REPLACED ANT LOCATION (2) (2) (3) (4) (5) (6) (7) (7) (8) (9) (1) (1) (1) (1) (1) (1) (1	THROUGH 1996 1997 1998 1999								
COMPONENT THROUGH 1996 1997 1998 1999 1	ACTOR NAME PLANT LOCATION COMPONENT THROUGH 1896 1997 1998 1999	EQUIPMENT ITEM(S) TO BE REPLAZAZAZAZAZAZAZAZAZAZAZAZAZAZAZAZAZAZAZ	OF EQUIPMENT	REPLACED					
COMPONENT THROUGH 1996 1997 1998 1999 199	COMPONENT THROUGH 1996 1997 1998 1999 1990 1	DEVELOPMENT CONTRACT INFO	DRMATION						
VORK, PA INTEGRATION 165234.0 56086.0 43900.0 14600.0 MCKINNEY,TEXAS IBAS 53344.0 7754.0 1100.0 1100.0 GOVERNMENT N/A 35028.0 18763.0 18039.0 10245.0 TEST N/A 302.0 5150.0 6455.0 9144.0 255808.0 R7753.0 64456.0 3026.0 32580.0	UDLP YORK, PA INTEGRATION 16524.0 56086.0 43800.0 14600.0 INSTRUMENT MCKINNEY, TEXAS IBAS 53344.0 7754.0 1100.0 10245.0 GOVERNMENT N/A 36028.0 18753.0 6455.0 9144.0 INDING EVINDING 253908.0 87753.0 69494.0 33989.0	CONTRACTOR NAME (1)	PLANT LOCATION (2)	COMPONENT (3)	THROUGH 1996	1997	1998	1999	BEYOND BYS
MCKINNEV,TEXAS IBAS 53344.0 7754.0 1100.0 10245.0 1024	MCKINNEY,TEXAS 1BAS 53344.0 7754.0 1100.0	UDLP	YORK, PA	INTEGRATION	165234.0	56086.0	43900.0	14600.0	(0)
GOVERNMENT N/A 35028.0 18763.0 18039.0 10245.0 TEST N/A 302.0 5150.0 6455.0 9144.0	GOVERNMENT N/A 35028.0 18763.0 18039.0 10245.0 TEST N/A 302.0 5150.0 6455.0 914.0 EVINDING EFUNDING 87753.0 68494.0 33989.0	TEXAS INSTRUMENTS	MCKINNEY, TEXAS	IBAS	53344.0	7754.0	1100.0		
TEST N/A 302.0 5150.0 6455.0 9144.0	TEST N/A 302.0 5150.0 6455.0 9144.0 EFUNDING 87753.0 68494.0 33989.0		GOVERNMENT	N/A	35028.0	18763.0	18039.0	10245.0	2020.0
2553908.0 R7753.0 G9404.0 33080.0	E FUNDING 253908.0 87753.0 69494.0 33389.0		TEST	N/A	302.0	5150.0	6455.0	9144.0	
253908.0 87753.0 69494.0 33080.0	E FUNDING 253908.0 87753.0 69494.0 33389.0								
		STAL RDT&E FUNDING			253908.0	87753.0	69494.0	33989.0	0 0606

						DATE		
	BOB	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	YTIVI			P-1 ITEM NOMENCLATURE	ш			
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat	T VEHS /Tracked Combat	Vehicles			BRADLEY FVS TRAINI	BRADLEY FVS TRAINING DEVICES (G20900)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	0.0	9.0	1.4	9'6	21.1	13.3	4.8	3.4

DESCRIPTION:

- visibility. The training objectives of AGTS are target acquisition, identification, and engagement IAW established tactical doctrine and procedures. The AGTS is against mobile and stationary targets, and single and multiple target arrays in a realistic battlefield environment during daylight, at night, and reduced 1. The Advanced Gunnery Training (AGTS) training objective is proficiency in the use of primary and alternate fire control and sighting equipment configured in two variants:
- a. Permanent (PAGTS)--used to support institutional training.
- b. Mobile (MAGTS)--used to support unit training. Is deployable anywhere in the world.
- 2. Hands On Turrent Trainer (HOTT) is a stand alone maintenance trainer used to support institutional training. It replicates an actual Bradley Turret allowing maintainers to trouble shoot, fault isolate, and repair over 100 induced faults.
- 3. Turret Diagnostic/Troubleshooter is a virtual reality desk top trainer used to suport institutional training. It is designed to support turret related operational repair and alignment skills for proper maintenance.
- 4. Hull Diagnostic/Troubleshooter is a virtual reality desk top trainer used to support institutional training. It is designed to support turret related operational repair and alignment skills for proper maintenance.
- 5. Upgrade of Precision Gunnery System (PGS). This currently fielded non-system training device (NSTD) is not compatible on the M2A3/M3A3 Bradley Fighting Vehicle.
 - 6. Upgrade of Thru-Sight Video (TSV). This currently fielded NSTD is not compatible on the M2A3/M3A3 Bradley Fighting Vehicle.
 - 7. Upgrade of MILES 2000. This currently fielded NSTD is not compatible on the M2A3/M3A3 Bradley Fightly Vehicle.
- Upgrade MILES SAWE. This currently fielded NSTD is not compatible on the M2A3/M3A3 Bradley Fighting Vehicle.
- facility were positioned in an M2A2 configuration. The CCTT simulators at specific installation must be upgraded to reflect the vehicles on that 9. Upgrade of Close Combat Tactical (CCTT). CCTT is a combined arms simulation trainer. The currently fielded NSTD simulators at each
- 10. Bradley Desktop Trainer (BDT) is a desktop computer designed to support individual and networked unit training. The computer replicates the interior turret operation of the Bradley vehicle. It provides hands on training of the commanders computer.

JUSTIFICATION:

the operational use of the vehicle. The goal of training devices is to provide cost effective training to the soldiers without sacrificing reallsm. This training equipment training, and restriction on the availability of suitable training areas will drastically reduce the capability to provide effective, realistic training on the BFVS through redesign of existing training equipment. The rising cost of fuel, ammunition, repair parts, environmental restrictions, vehicles used exclusively for Introduction of the more technologically advanced Infantry Fighting Vehicle and Cavalry Fighting Vehicles into the Army inventory necessitates a will be part of an overall training package which will be used to replicate or substitute for actual vehicle use.

WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR	ENT OF W	Y TITLE/NO PNS & TRKD C	A. APPN BUDGET ACTIVITY TITLENO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 /	B. WEAPON BRADLEY	Y FVS TRAININ	B. WEAPON BRADLEY FVS TRAINING DEVICES (G20900)		C. MANŬFACTURER NAME	IRER NAME	D. DATE Febr	TE February 1997
WTCV	Q		FY 96	FY 96	8	FY 97			EV 98			EV 00	
Cost Elements	CO	TotalCost	Otly		TotalCost	Q.	UnitCost	TotalCost	Po	UnitCost	TotalCost	2 AC	Inithopt
		\$000	Each	000\$	\$000	Each	\$000	\$000	Each	\$000	\$000	Fach	\$000\$
1.ADVANCED GUNNERY TRAINING SYS a. Production b. Government Engineering	∢										360		1220
SUBTOTAL						····					4020		
2. MAINTENANCE TRAINERS a. HOTTS b. Hull D/T c. Turret DTt d. Government Engineering					550	-	550	672 290 400 55	- 2 20	672 58 80	1629 290 400	വവത	543 58 80
SUBTOTAL					572			1417	•		97.00		
PRECISION GUNNERY SYSTEM Production Government Engineerig											6747		
SUBTOTAL											5 4		
MILES 2000 a. Production b. Government Engineering SUBTOTAL					***************************************				v v		352 45	44	8
BDT a. Production b. Government Engineering SUBTOTAL									,		2592 63	96	27
TOTAL					572			1417			9544		



Exhibit P-5A Procurer History and Plan

BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANN	ORY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	997
B. APPROPRIATION / BUDGET ACTIVITY DEOCLIDEMENT OF WEN	N PBOCI IDEMENT OF WONG & TEKN CAMPT VEHS / 4 / Tracked Combos Vehicles	oploj4o/Vahiolog			C. P-1 ITEM NOMENCLATURE	OMENCLATU	MENCLATURE	0,010	1000	
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LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	METHOD AND TYPE	CONTRACTED BY	AWARD	DATE OF FIRST DELIVERY	ΩTΥ	SOOO SOOO	SPECS AVAIL NOW	SPEC REV REO'D	IF YES WIA
1.ADVANCED GUNNERY TRAINING SYS FY 99	Lockheed Martin, Orlando, FL	FFP	STRICOM	Oct-98	Aug-00	8	1220		N/A	N/A
2. MAINTENANCE TRAINERS							7			
а. НОТТ										
FY 97	Contraves, Tampa, FL	FFP	STRICOM	Nov-97	May-99	-	550	N/A	A/A	N/A
FY 98	Contraves, Tampa, FL	FFP	STRICOM	Nov-97	May-00	-	672	N/A	N/A	N/A
FY 99	Contraves, Tampa, FL	FFP	STRICOM	Nov-98	Jun-00	ဇ	543	N/A	N/A	N/A
b. Hull D/T										
FY 98	Contraves, Tampa, FL	FFP	STRICOM	Nov-97	May-99	5	58	N/A	N/A	N/A
FY 99	Contraves, Tampa, FL	FFP	STRICOM	Nov-98	May-00	ις O	28	N/A	N/A	N/A
T/C comit										
EY 98	Contraves. Tampa, FL	FFD	STRICOM	Nov-97	May-99	LC.	OB		A/N	N/A
FY99	Contraves, Tampa, FL	FFP	STRICOM	Nov-98	May-00	מו	80	K/N	N/A	N N
4. MILES 2000 FY99	Cubic Defense, San Diego CA	H H	STRICOM	Dec-98	Aug-00	4	Ω.	NA	A/A	N/A
5. BDT		1								
FY99	UDLP	4H 4H	STRICOM	Nov-98	Aug-00	96	27	N/A	Y Y	A/A
REMARKS:										

	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET		DATE	Fahrian 1997	
APPROPRIATION / BUDGET ACTIVITY	וועודץ			P-1 ITEM NOMENCLATURE			tool dimino	
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat V	3T VEHS /Tracked Combat	Vehicles		HEA	HEAVY ASSAULT BRIDGE (HAB) TRAINING DEVICES (G84800)	3) TRAINING DEVICES (G8	4600)
	FY 1996	FV 1997	EV 4000	- A 4000				
		1001	1 1 1330	666111	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY					Ľ			
TOOOT AND THE PROPERTY OF								
COST (in millions)				0.4	15.8	1.3	11	
				The second secon			-	

evolve into a future unit collective training system (mid to far term) implementation. Five institutional operator simulator systems will be located and housed at Ft. Leonard Wood to accomplish Advanced Individual Training (AIT) for the Military Occupational Specialty (MOS) 12B Combat Engineer launch and retrieve the bridge) - day/night and in all weather/environmental conditions. Each simulator system will have the capability to train two DESCRIPTION: The Wolverine (Heavy Assault Bridge) simulator is an institutional operator training system (near term implementation) and will on Wolverine driver/operator mission functions. Mission functions will include, driving the vehicle and conducting gap crossing operations (e.g. Wolverine crews (4 MOS 12Fs) concurrently. The average student throughput is approximately 208.

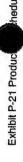
JUSTIFICATION: The simulators will optimize training effectiveness at reduced institutional OPTEMPO costs and will minimize environmental impact to the installation.

Budget Item Justiff

266		UnitCost	O O S
D. DATE February 1997	6		
D. DAT	FY 99	Н	Each .
TURER NAME N/A		TotalCost	398
C. MANÜFACTURER NAME N/A		UnitCost	OOO\$
	FY 98	Qty	Each
RAB TRAINING DEVICES (G84600)		TotalCost	0000\$
IN B TRAINING DE		UnitCost	OOO\$
B. WEAPON HAB	FY 97	QİŞ	Each
ABT VEHS/1/		TotalCost	0000\$
A. APPN / BUDGET ACTIVITY TITLENO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vahiolas		UnitCost	000\$
T ACTIVITY NT OF WIT	FY 96	Oth	Each
A. APPN/BUDGE PROCUREME		TotalCost	000\$
	2	8	
WTCV Cost Analysis	WTCV	Cost Elements	Gov't Program Mgmt

						Γ	P-1 ITEM	P-1 ITEM NOMENCLATURE	LATURE			l	ı		l	l		l	DATE	_			ı		ı		Γ
FY 96 / 97 BUDGET PRODUCTION SCHEDUL	큠	CIION	SCHED	щ	- 1					HAE	HAB TRAINING DEVICES (GB4600)	ING DI	VICES	(G846	(00							Febr	February 1997	766			
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HAB Training Device	3	96 & Pr		-	0			-	-		╁	-	₽			+	₽	╄	-		-	-	2	-	+	+	_
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						DATE		
	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SE	HEET			Februa	February 1997
APPROPRIATION / BUDGET ACTIVITY	IIVITY			P-1 ITEM NOMENCLATURE	u			
PROCUREME	NT OF WPNS & TRKD CM	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat \	Vehicles		BRADLE	BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)	DEVICES (MOD)	(GZ2500)
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	EV 2002	EV 2003
QUANTITY							7007	2002
COST (in millions)	1.8	0.9	0.0	2.1	4.6	4.9	0.0	0.0

DESCRIPTION: (1) The Conduct of Fire Trainers(COFT) for the Bradley Fighting Vehicle provide training in target acquisition identification and package which is used to simulate or substitute for actual vehicle use. (2) The requirement to upgrade a specified number (30) of M2A1/M3AI engagement using primary, secondary, and auxiliary fire control and sighting equipment. This training equipment is part of an overall training COFTS to replicate the M2A2/M3A2ODS configuration was the result of Operation Desert Storm. (3) Software Upgrades to Bradley Training to Bradley Training Devices to M2/M3A1 COFTs, ODS COFTs, PGS, CCTT, AGTS, Bradley Desktop Trainer.

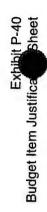
The intended sites for the M2/M3A1 Conduct of Fire Trainers (COFTs) by converting fifteen (15) M60A3 Mobile Conduct of Fire Trainers (M-COFTs) to M2/M3A1 M-COFTs and two (2) M60A3 Unit of Fire Trainers (U-COFTs) to M2/M3A1 U-COFTs are listed below.

278 ACR	2-121 IN (48 SMB)	E131 CAV (11 ACR)		,		
1-120 IN (30 SMB)	1-167 IN (31 SAB)	1-124 CAV (49 AD)	1-141 IN (49 AD)	2-141 IN (49 AD)	3-144 IN (49 AD	CAMP SHELBYTC
3-161 IN (81 SMB)	1-118 IN (218 SMB)	1-163 IN (116 SAB)	2-136 IN (MN-STARC)	2-278 ACS (278 ACR)	3-278 ACS (278 ACR)	1-119 IN (30 SMB)

requirements. (3) Software updates will be required of training devices. Training devices now function based on software. As a system is upgraded/ JUSTIFICATION: (1) Conversion of fifteen (15) M60A3 M-COFTS to M2A1/M3A1 M-COFTS and two (2) M60A3 U-COFTs to M2/M3A1 U-COFTs; (2) M2A2/M3A2 Bradley Fighting Vehicle COFT Operation Desert Storm Enhancement Program are required to meet Army's new force structure modified, software on the training device must be modified to ensure no negative training for the soldier.

The average soldier sustainment throughput per year is approximately 3,600 for the BFV Commanders and Gunners in the units who will be receiving training on these COFTS.





		DATE
BUDGET ITEM JUSTIFICATION SHEET	IEET	February 1997
APPROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	BRADLE	BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)

OSIP No.	Description All PVs	FY 1997	FY 1998	FY 1999	FY 2000	FY2001	FY 2002	FY 2003
1-93-05-4429	M-COFT CONVERSION							
N/A	7.1 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-96-05-4509	ODS COFT ENHAI	NCEMENT	c	c	C	C	00	00
Operational	8.0	0.0	0.0	0.0	0.0	2		25
-96-05-4513	Software Upgrades		o o	•	9	0		
Operational	0.0	0.9	0.0	7.7	4.0	D.	0.0	2.0
Totals	15.7	6.0	0.0	2.1	4.6	4.9	0.0	0.0
			,					

				MODELLON INC. PELENTION SOLVINA TIDBLE			Date		
								September 1996	1996
			(TOA, D	(TOA, Dollars in Millions)	Millions)				
	25								
System/Modification	FY 1996	EY 1997	FY 1998	FY 1999	FY 2000	FY2001	FY 2002	FY 2003	TOTAL
No Pas Set for modification BRADLEY FVS TRAINING DEVICES (MOD)	*								
GZ2500									
M-COFT CONVERSION	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
ODS COFT ENHANCEMENT	4.3	0.0	0.0	0.0	0.0			0.0	4.3
Software Upgrades	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Totals	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
NOTE: INSTALLATION COST IS NOT SEPARATELY IDENTIFIED ON THE CONTRACT. THEREFORE, P3N NOT APPLICABLE									

	INDIVIDUAL MODIFICATION		Date	September 1996
MODIFICATION TITLE:	M-COFT CONVERSION 1-93-05-4429			
MODELS OF SYSTEMS AFFECTED:	M2/M3AI M-COFTS			
DESCRIPTION / JUSTIFICATION:				
The conversion is required to	The conversion is required to provide the number of M2AI/M3A1 M-COFTS identified by the latest force structure.	tified by the latest force str	ucture,	
PEVEL OBMENT CTATIS / MA JOB DEVEL OBMENT MILESTON	EVEL ODMENT MILECTONIES.			
Examples		PLANNED	ACCOMPLISHED	
Preliminary Design Review:	lew:	N/A	N/A	
Critical Design Review:		N/A	N/A	
Contractor Test and Evaluation:	aluation:	1096	2096	
Development Test and Evaluation:	≣valuation:	N/A	N/A	
Inital Operational Test and Evaluation:	nd Evaluation:	1096	2Q96	
IPR Production Decision	_	N/A	N/A	
TDP Available:		N/A	N/A	



ation

Exhibit P3a Individual M

Installation Schedule:		COF	M-COFT CONVERSION 1-93-05-4429	IVER	SION	1-93	1-05-4	129								Date		ഗ്	September 1996	er 199	96				
	FY 1996		FY 1997	266			FY 1998	866			FY 1999	6			FY 2000	0			FY 2001						
	& Prior	ť	CI	(C)	41	-	C)	co)	41	-	C/I	හ	41	-	CI	m)	41	- -1	21	4					Total
Inputs																									
FY 1996 & Prior	17																								
FY 1997																									
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FY 1999																									
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FY 1997																									
FY 1998																									
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Inputs																									
FY 2000																									
FY 2001																									
FY 2000																									
FY 2001																									
Outputs																									
FY 2000																									
FY 2001																									
FY 2000																									
FY 2001																									
Remarks:																									

The enhancement is required to provide the number of M2A1/M3A1 U-COFTS identified by the latest force structure.

ACCOMPLISHED
Q Q
PLANNED
BEVELOPMENT MILESTONES:
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	PLANNED	ACCOMPLISHED
Preliminary Design Review:	3095	3095
Critical Design Review:	4095	4Q95
Contractor Test and Evaluation:	2096	2Q96
Development Test and Evaluation:	N/A	N/A
Inital Operational Test and Evaluation:	3096	3Q96
IPR Production Decision	NA	NA
TDP Available:	NA	AA

					INDIVIDUAL MODIFICATION	UAL MC	DDIFICAT	LION							Date		Septem	September 1996	
MODIFICATION TITLE (Cont):		0	ODS COFT EN	TEN	HANCEMENT 1-96-05-4509	MENT	1-96-()5-4509											
FINANCIAL PLAN: (\$ in Millions)		[
	FY 1996 and Prior		FY 1997	7	FY 1998	-	FY 1999	FY2	FY 2000	FY 2001	001	FY 2002	002	FY 2003	003		TC	TOTAL	AL
	Ofy	+	Qty		Otty \$	0	\$	Qty	€9	Oth	69	Q.	69	δį	69	Q	€9	Ofy	69
RDT&E PROCUREMENT Kit Quantity Installation Kits Installation Kits Nonrecurring Equipment Equipment Equipment Capineering Change Orders Data Training Equipment Support Equipment Other Interim Contractor Support Interim Contractor Support FY 1996 & Prior Eqpt Kits FY 1997 Eqpt Kits FY 1999 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2001 Eqpt Kits FY 2001 Eqpt Kits FY 2003 Eqpt Kits FY 2003 Eqpt Kits FY 2003 Eqpt Kits FY 2003 Eqpt Kits FY 2003 Eqpt Kits		4.3																89	6.4
Total Installation Cost Total Procurement Cost	30	8.6			$\ \ $	H												9	8.6
METHOD OF IMPLEMENTATION: Contract Dates: Delivery Date:		FY 1997: FY 1997:	z ^z	N/A N/A	ADMINISTRATIVE LEADTIME: FY 1998: FY 1998:	AATIVE FY 1 FY 1	IVE LEADTIN FY 1998: FY 1998:	ij	NA A	Months		PRODUC FY 1999: FY 1999:	JCTION 9:	PRODUCTION LEADTIME: FY 1999: FY 1999: N/A	OTIME: N/A N/A	52	Months		



cation

Exhibit P3a Individual M

	INDIVIDUAL MODIFICATION	September 1996
MODIFICATION TITLE:	Software Upgrades 1-96-05-4513	
MODELS OF SYSTEMS AFFECTED:	M2/M3AI COFTS, ODS COFTS, Precision Gunnery System, CCTT, AGTS, Bradley Desktop Trainer, and Maintenance Training Systems (HOTT).	sktop Trainer,
DESCRIPTION / JUSTIFICATION:		
Software updates will be required of training devir software on the training device must be modified	Software updates will be required of training devices. Training devices now function based on software. As a system is upgraded/modified, software on the training device must be modified to ensure no negative training for the soldier.	ograded/modified,
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	/ELOPMENT MILESTONES: NOT APPLICABLE FOR SOFTWARE UPGRADES.	4
Preliminary Design Review:		
Critical Design Review:		
Contractor Test and Evaluation:	Justion:	
Development Test and Evaluation:	aluation:	
Inital Operational Test and Evaluation:	d Evaluation:	
IPR Production Decision		
TDP Available:		

Installation of Hardware

Training Equipment Support Equipment

PROCUREMENT

RDT&E

Installation Kits

Equipment

Kit Quantity

FY 1995 Eqpt -- Kits FY 1996 Eqpt -- Kits FY 1997 Eqpt -- Kits FY 1998 Eqpt -- kits FY 1999 Eqpt -- kits FY 2000 Eqpt -- kits FY 2001 Eqpt -- kits

(FY(TC) Eqpt (xx kits)

Total Installation Cost

Contract Dates: Delivery Date:



fication

Exhibit P-3a Individua

Installation Schedule:		ftwar	Software Upgrades 1-96-05-4513	rades	1-96	-02-4	513									Da	Date		Septen	September 1996					
	FY 1996		FY 1997	266			Ŧ	FY 1998			FY 1999	666			FY 2000	00			FY 2001	=					
	& Prior	-	C)	(C)	41	-	CVI	(7)	41	-	⊘t	(C)	41		OI.	(C)	41	-	OI	ଠା	41				Total
Inputs																									
FY 1996 & Prior																									
FY 1997																									-
FY 1998																									
FY 1999																									
Outputs																									
FY 1996 & Prior																									
FY 1997																									
FY 1998																									
FY 1999																									
			FY 2000	0			FY 2001	=			FY 2000	0		ĬL.	FY 2001			ĬL.	FY 2002			FY 2003	8		
		_	8	ဗ	4	-	Ø	က	4	-	0	က	4	-	0	က	4	-	7	ဗ	4	1 2	က	4	Total
Inputs																									
FY 2000																									
FY 2001																									
FY 2000																									
FY 2001																									
Outputs																									
FY 2000																									
FY 2001																									
FY 2000																									
FY 2001																									
Remarks:	KIT INSTALLATION NOT APPLICABLE FOR SOFTWARE UPGRADE.	STALL	ATION	NOT A	PPLIC	ABLE	FOR S	DFTW/	RE UP	GRAD	ui														

	B	BUDGET ITEM JUSTIFICATION SHEET	JUSTIFICA	TION SHEE	F		DATE	Febru	February 1997		
APPROPRIATION / BUDGET ACTIVITY	TIVITY				P-1 ITEM NOMENCLATURE	ENCLATURE			ion fin		
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	S & TRKD CM	BT VEHS /Ti	racked Comb	at Vehicles			TELD ARTIL	LERY AMM	INITION SUI	FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)	30100)
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	EV 2002	EV 2003	EV 2000 EV 2001 EV 2002 EV 2003 To Commists	Total Dragge
QUANTITY	805	48	48				1002	1 2002	2002	a) and indicate	rolai Piùgiaili
COST (in millions)	408.9	50.0	64.1	0.0	0.0	00	00	00	00		505.0
Initial Spares (in millions)	1.8								25		1 8
Total (in millions)	410.7	50.0	64.1								524.8
Unit Cost (in millions)	0.5	1.0	1.3								0.54.0
DESCRIPTION											0.0

support the M109 Self-Propelled Howitzer (SPH). The FAASV is capable of transporting a minimum 12,000 pounds of 155mm ammunition over improved, unimproved, and/or cross-country roads. Armor shielding provides necessary ballistic protection. An armored rear door hinges upward and outward to provide the overhead ballistic protection between the FAASV and the Howitzer during loading operations. A conveyor is used for passing prepared projectiles and propellant charges from the FAASV The Field Artillery Support Vehicle (FAASV) is a full tracked armored ammunition vehicle with onboard Ammunition Handling Equipment (AHE). The M992 is used to into the supported Howitzer, Modifications to the rear door, conveyor, and propellant canister racks is incorporated to make the FAASV compatible with the M109A6 Paladin. The FAASV has the mobility equivalent to its supported Self-Propelled Howitzers. The FAASV is designed to operate in all geographical areas and climatic conditions in which the Howitzer operates. The M992A2 was type classified standard in JULY 1994,

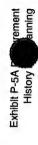
JUSTIFICATION:

over the current M548, which is being replaced on a one-for-one basis. Thus, high artillery firing rates can be maintained while minimizing casualties. The FAASV has a The Carrier, Ammunition, Tracked (155mm, M992A2) provides a significant Improvement to the Army's offensive ground combat capability. The FAASV provides 100% increase in armor protection for the crew and ammunition, an 80% increase in Ammunition Handling Equipment (AHE) capability and a 50% increase in vehicle mobility ventilated face piece Nuclear, Biological, Chemical(NBC) system, a Simplified Test Equipment - Internal Combustion Engine (STE-ICE), and an Automatic Fire Extinguisher System. The FAASV is a companion vehicle to, and is required to support the M109A6 Self-Propelled Howitzer (SPH). It also preserves a warm mobilization base for the SPH with the only tooled and experienced producer.

WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR	T ACTIVITY NT OF WP	TITLE/NO NS & TRKD CA	A. APPN / BUDGET ACTIVITY TITLENO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 /	B. WEAPON FIELD AR	TILLERY AMI	. WEAPON FIELD ARTILLERY AMMUNITION SUPPORT		C. MANUFACTURER NAME UDLP-GSD	FACTURER NAME UDLP-GSD	D. DATE	DATE
	٩		Tracked Co	Tracked Combat Vehicles		EV 07	VEH (G80100)	80100)	- CO 7.2			100	daly 1337
Cost Elements	5 5	TotalCost	2	1 Initions	TotalCost	187	1 Part Care	T-4-10-4	FY 98			FY 99	
		#OOO	Fach	O III COSI	#OOO	4000	OIIIICOSI	POGICOSI	2 10	UnitCost	OralCost		UnitCost
1. Basic Vehicle	4	38637	48	804938	35216	48	733667	9000	Each	A	0000	Facu	<i>y</i>
2. Engine		1319	48	27479	1319	48	27479						
4. Track		895	7872	114	897	7872	107						
5. BII		302	48	6354	324	48	6750						
6. Government Furnished Materiel 7. Funinsering Change Orders		2955			3702								
8. Engineering - Government		1506			6889								
9. Engineering - Contractor		2448			12699								
11. Initial Production Test 12. Fielding		259 825			332								
Total		49088		1041417	64140		1226250						
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ı	BODGEI PROCOREMENI HISTORY AN	ID PLAN	Y AND PLANNING EXHIBIT (P-5A)					Feb	February 1997	1997
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE	MENCLATUR	ш			
PROCUREMENT OF WPN	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles	Combat Veh	icles		FIELD 4	ARTILLE!	FIELD ARTILLERY AMMUNITION SUPPORT	NOILIN	SUPF	PORT
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST		UNITCOST	VAIL		IF YES WIA
1. Basic Vehicle					DELIVERY	Each	s	MON	REQ'D	
FY 96	United Defense (UDLP-GSD)	SS/FFP	TACOM	96-Inf	May-98	48	804938			
FY 97	United Defense (UDLP-GSD)	OPTION TACOM	TACOM	Feb-97	Nov-98	48	733667			
2. Engine	York, PA								•	
FY 96	Detroit Deisel	SS/FFP	ТАСОМ	96-Jnf	Nov-97	48	27479			
FY 97	Detroit Deisel	SS/FFP	TACOM	Jan-97	Aug-98	48	27479			
3. Roadwheels	Detroit, MI	EPA								
FY 96	North American Molded Products	C/FFP	TACOM	May-96	Oct-97	1344	107			
FY 97	Hartville, OH North American Molded Products	C/FFP	TACOM	Jan-97	Jan-98	1344	107			
4. Track	Hartville, OH									
FY 96	VAREC, Belguim	C/FFP	TACOM	96-Inf	Oct-98	7872	114		<u> </u>	
FY 97	TBD	C/FFP	TACOM	Aug-97	May-98	7872	114		-	





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P-1 ITEM NOMENCLATURE FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)			00-																						1	00-	MFR	Number							
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FY 98 / 99 BUDGET PRODUCTION SCHEDULE			COST ELEMENTS																									NAME / LOCATION	P-GSD)	(Gop. H					
UL.			LSOO	1. Basic Vehicle																				TOTAL	IOIAL		Σ	L O	1 Initial Defense (I IDI P-GSD)						



						DATE		
	BUD	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	YTIVI			P-1 ITEM NOMENCLATURE				
PROCUREMEN	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	r VEHS /Tracked Combat \	Vehicles			ARMORED COMBAT EA	ARMORED COMBAT EARTHMOVER (G82303)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	54	0	0	0	0	0	0
COST (in millions)	0.0	51.0	0.0	0.0	0.0	0.0	0.0	0.0

and power train. The M9 provides the unique capability to travel at high speeds while retaining the capability for heavy digging. It has been provided transportable in C130, C141, and C5 aircraft. It provides light armor and chemical protection for the operator and armor protection for the engine to combat engineers and engineer support units. Its primary use is to support maneuver forces by digging survivable fighting positions for tank, DESCRIPTION: The M9 Armored Combat Earthmover (ACE) is a highly mobile, high speed, tracked, armored combat earthmover. It is air infantry, and artillery units and create anti-tank ditches for obstacles.

JUSTIFICATION: Vehicles are required for 4ID units and the mission is to prepare fighting positions for the Army's prime ground combat vehicles, the M1 and M2/M3.

WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRI Tracked Combat Ve	Tracked Co	TITLE/NO NS & TRKD CA pmbat Vehicles	IBT VEHS/1/	B. WEAPON ARMOREI	COMBAT EA	B. WEAPON ARMORED COMBAT EARTHMOVER (G82303)		C. MANUFACTURER NAME		D. DATE February 1997	lary 1997
	₽		FY 96	FY 96		FY 97			FY 98			FV 99	
ents	CD	+	Otty	UnitCost	TotalCost	_	UnitCost	TotalCost	ð	UnitCost	TotalCost	À	UnitCost
1. Hardware 2. Engines 3. Engineering In House Support	4		Each	00000	\$000 48060 2700 192	54 54	000 880 20 20 20	000	Each	000\$	000\$	Each	000\$
TOTAL					29092								

	BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANNIN	ORY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	
B. APPROPRIAT	B. APPROPRIATION / BUDGET ACTIVITY					C, P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	RE			
	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1	S & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles	bat Vehicles				ARMORED (ARMORED COMBAT EARTHMOVER (G82303)	IOVER (G8	2303)	
	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	ΩTY Each	UNIT COST	SPECS AVAIL NOW	SPEC IF REV REQ'D	IF YES W/A
FY97		United Defense LP York, Pennsylvanla		ТАСОМ	76-Jul	Oct-98	45	880	Xex	8	
REMARKS:	Breakout of hardware can't be determined until ALPHA contract process is completed. Costs will be determined by using cost as an independent variable.	d until ALPHA contract process Is com	pleted. Cost	s will be determined by using o	cost as an i	nebuedepu	l variable.				



Exhibit P-21 Produc

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FY 98 / 99 BUDGET PRODUCTION SCHEDULE	함	CTION	SCH					١	ı		HWIC	AHMORED COMBAI EARTHMOVER (GB2303)	OMB	EA	Ě	VEH	(GBZ3	(2)		١	1				epunge-	February 1997	_	ı	-	T
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	BUD	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	IEET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	אדועוד			P-1 ITEM NOMENCLATURE				
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	T VEHS /Tracked Combat	Vehicles			ABRAMS TANK TRAINING DEVICES (GB1300)	NG DEVICES (GB1300)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	6.1	12.6	13.4	13.9	8.5	11.2	12.6	13.1
							The state of the s	Antibody and an arrangement of the Party of

M1A2 TRAINING DEVICES

DESCRIPTION: The family of M1A2 Training Aids, Devices, Simulators and Simulations (TADSS) will replicate actual tank performance without incurring the much higher costs of operating the tank itself.

- varying scenarios as well as atmospheric conditions. The System Enhancement Program (SEP) improvements will be cut Into production in FY98. - Advance Gunnery Training System (AGTS) - These are precision gunnery trainers which provide realistic commander and gunner training under
- Maintenance Trainers These systems provide training in essential unit and direct support/general support tasks. There are four different trainers: Electrical System Test Set Line Replaceable Unit (DSESTS LRU) simulators. The students (approx 600/yr) will learn about the sub-systems and M1A2 Hands-on-Trainer (HOT); Hull Electrical Diagnostic/Troubleshooting (D/T) Trainer; Turret/Fire control D/T Trainer; and Direct Support procedures for troubleshooting and fault isolating the tank system. The intended sites are Ft. Knox and Aberdeen Proving Grounds.
- · SEP Integration This funding provides for integration of SEP improvements into the various training devices impacted by those changes on the

JUSTIFICATION: Fielding of the M1A2 Main Battle Tank requires concurrent fielding of a training support package. Rising O&S costs will drastically reduce the capability to provide effective, realistic training on the M1A2 tanks through the operational use of the vehicle. Realistic training on a family of training devices simply makes better economic sense.

WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR	T ACTIVITY	APPN/BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1	ABT VEHS / 1 /	B. WEAPON ABRAMS	N S TANK TRAINI	3. WEAPON ABRAMS TANK TRAINING DEVICES (GB1300)	(B1300)	C. MANUFACTUREH NAME Various		D. DATE Febr	TE February 1997
WITCH	2		Tracked EV oc	Cracked Combat Vehicles		EV 07			200				
	5	t	2	L		18/			FY 98			FY 99	
Cost Elements	g O	TotalCost	ğ	UnitCost	TotalCost	Oth	UnitCost	TotalCost	ð	UnitCost	TotalCost	Qt	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	000\$	000\$	Each	\$000
Adv Gunnery Training System (AGTS)	4												
1) Production		1819			0099			7700			8800		
3) First Article Test		268			nee			occ			300		
		2907			2840			1768					
SUBTOTAL		5200	7	743	0666	9	1665	10018	9	1670	9500	80	1188
M1A2 Maintenance Trainers 1) Production 2) Gov't Spt 3) First Article Test 4) Non Recurring Cost	⋖	750											
SUBTOTAL		933	VAR	VAR									
M1A2 Non System Integration Kits 1) Production 2) Gov't Spt 3) First Article Test 4) Non Recurring Cost	4				550 50								
SUBTOTAL					009	VAR	VAR						
M1A2 Software Upgrades 1) Production 2) Gov't Spt 3) First Article Test 4) Non Recurring Cost	⋖	. 44			100			100			100		
SUBTOTAL					1000	VAR	VAR	1200	VAR	VAR	1200	VAR	VAR
SEP Integration 1) Production 2) Gov't Spt 3) First Article Test 4) Non Recurring Cost	4				1000	· · · · · · · · · · · · · · · · · · ·		633 50 1450			3000		
SUBTOTAL					1000	VAR	VAR	2133	VAR	VAR	3150	VAR	VAR
TOTAL		6133			12590			13351			13850		

BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PI ANNI	BY AND PLANNING EXHIBIT (P-5A)					DATE	Tobaron 4007	
B. APPROPRIATION / BLIDGET ACTIVITY					DA ITEMAN	DATITEM NOMENO! ATTIDE	90		Dinaiy is	166
PROCUREMENT OF WPN:	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles	bat Vehicles				ABRAMS TA	MENOLATORE ABRAMS TANK TRAINING DEVICES (GB1300)	VICES (GE	1300)	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAIL NOW	SPEC REC RECT	IF YES WIA
Adv Gunnery Training System (AGTS) FY 96 FY 97 FY 98 FY 99	Lockheed Martin, Orlando, FL Lockheed Martin, Orlando, FL Lockheed Martin, Orlando, FL Lockheed Martin, Orlando, FL	9 4 4 4 4 7 7 9 7 9	STRICOM STRICOM STRICOM STRICOM	Feb-96 Jan-97 Mar-98 Jan-99	May-97 Mar-98 Mar-00 Mar-01	VAR VAR VAR	VAR VAR VAR		8 8 8	
M1A2 Maintenance Trainers FY 96	Contraves, Tampa, FL	C-FFP	STRICOM	Mar-96	Mar-98	VAR	VAR	Yes	å	
M1A2 Non System Integration Kits 1/ FY 97	Various	C-FFP	STRICOM	Mar-97	Jun-98	VAR	VAR	Š	Š	
M1A2 Software Upgrades 2/ FY 97 FY 98 FY 98	Various Various Various	O-FFP C-FFP C-FFP	STRICOM STRICOM STRICOM	Dec-96 Dec-97 Dec-98	Dec-97 Dec-98 Dec-99	VAR VAR	VAR VAR	0 0 0 2 2 2	2 2 2	
SEP Integration FY 97 FY 98 FY 99	Lockheed Martin, Orlando, FL Lockheed Martin, Orlando, FL Lockheed Martin, Orlando, FL	0.9PF 0.9PF 119-0	STRICOM STRICOM STRICOM	Feb-97 Feb-98 Feb-99	NA NA Mar-00	VAR VAR VAR	VAR VAR VAR	S S S	0 0 0 2 2 2	
REMARKS: 1/ M1A2 Non-System Integration Kits provide system unique kits allowing the installation of Non-System Training Devices, such as Thru Sight Video (TSV), Tank Weapon Gun Simulation	ovide system unique kits allowing the i	nstallation o	f Non-System Training Devices	s, such as T	hru Sight V	ideo (TSV)	, Tank Weapon	Gun Si	mulation	

1/ M1A2 Non-System Integration Kits provide system unique kits allowing the installation of Non-System Training Devices, such as Thru Sight Video (TSV), Tank Weapon Gun Simulation System (TWGSS) and Precision Range Integrated Maneuver Exercise (PRIME), and Multiple Integrated Laser Engagement System (MILES) onto the M1A2 tank.

2/ M1A2 trainer software upgrades update M1A2 training devices to keep pace with changes in the M1A2 tank.





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Exhibit P-21 Produc

						P.	P-1 ITEM NOMENCLATURE	MENC	LATUR	E									Δ.	DATE							Γ
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	a	BUDGET ITEM JUS	M JUSTIFICA	TIFICATION SHEET	H.			Februa	February 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
PROCUREME	NT OF WPNS & TRK	D CMBT VEHS /Trac	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles				ช	COMMAND & CONTROL VEHICLE (G84200)	OL VEHICLE (G842)	(00	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY			5	2	14	22	35	22	35	301	439
COST (in millions)			48.9	30.9	62.7	100.0	122.9	86.8	123.9	1008.0	1584.1
Initial Spares (in millions)				-	-						1.8
Total (in millions)			48.9	31.8	63.6	100.0	122.9	86.8	123.9	1008.0	1585.9
Unit Cost (in millions)			9.8	6.4	4.5	4.5	3.5	3.9	3.5	3.3	3.6

components. It will ensure a mobile, responsive, and survivable command and control capability for the heavy force, and it provides the platform to support command and control on the move. C2V was developed in response to lessons learned during Operation Desert Storm. It supports the Army Digitization Effort, incorporating communications and electronic systems compatible with Army Tactical Command and Control Systems (ATCCS). DESCRIPTION: The Command and Control Vehicle (C2V), XM4 provides a fully tracked, armored vehicle based on Bradley A2 and MLRS designs and

JUSTIFICATION: This program was initiated as a result of deficiencies in existing command and control vehicles identified during Operation Desert Storm.

TE February 1997		UnitCost	\$000	2536	154	190	118		35	45					
D. DATE Febr	FY 99	Oth	Each	14	4	4 4	4	4 4	4 4	4					
ъ	מחומ	TotalCost	\$000	35507	2155	2656	1654	820	3087	629	47542			964 2845 9761 438 418 292 421	62681
C. MANUFACTURER NAME United Defense Limited Partnership (LIDI D)	Lamers	UnitCost	\$000	3134	151			Ē	295	45					
-	FY 98	ð	Each	5	S			u	o vo	, ro					
, WEAPON COMMAND & CONTROL VEHICLE (G84200)		TotalCost	\$000	15668	754			7,7	1475	226	18278			680 2791 7179 408 389 286 886	30897
IND & CONTRO		UnitCost	\$000	2479	148			ac	365	79				50	
B. WEAPON COMMAN	FY 97	Qt	Each	ഗ	ည			ĸ	ດນ	Ω.				439	
MBT VEHS/1/		TotalCost	\$000	12394	739			141	1826	396	15496			1185 9296 300 190 522 21950	48939
A. APPIN BOUGET ACTIVITY TILLEND PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		UnitCost	000\$	<u> </u>											
ENT OF W	FY 96	ΑIO	Each												
A. APPN / BODGET ACTIVITY TITLENO PROCUREMENT OF WPNS & TR Tracked Combat Ve		TotalCost	\$000												
	<u></u>	CD	П								· · · · · · · · · · · · · · · · · · ·				
WTCV Cost Analysis	WTCV	Cost Elements		1. Vehicle 2. Engine (included in LOT buy)	_				9. Mission Component Integration	-	Subtotal Hardware Cost	 Tooling FAT/Qual of Vendors 	Subtotal Non Recurring Production	 Test Engineering-Government Engineering Contractor Project Management Administration Project Management Administration Reimbursable Matrix Support Software Support Logistics Cummins Engine Life-of-Type (LOT) Buy 	TOTAL

2da Tagaila	BIIDGET BBOCIIBENENT DISTORY AND	DI ABIAL	NO EVILIBIT (D EA)					DATE		
	CONCINENT HISTORY AND	FLAININ	ORI AND PLANNING EARIBIT (P-5A)					Fet	February 1997	97
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE	DMENCLATU	RE			
PROCUREMENT OF WPN	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles	bat Vehicles				COMMAND	COMMAND & CONTROL VEHICLE (G84200)	CLE (G842	(00)	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTV Each	SOOO	SPECS	SPEC IF REV RFO'D	F YES W/A
1. Vehicle								-		
FY 97	UDLP, York, PA	SS/FFP	TACOM	Dec-96	Apr-98	Ω.	2479		^o Z	
FY 98	UDLP, York, PA	SS/FFP	TACOM	Dec-97	Apr-99	ιΩ	3134		g	
FY 99	UDLP, York, PA	SS/FFP	TACOM	Dec-98	Apr-00	4	2536		2	
3. Transmission									_	
FY 97	Lockheed-Martin, Pittsfield, MA	SS/FFP	TACOM	Mar-97	Apr-98	Ω.	148		2	
FY 98	Lockheed-Martin, Pittsfield, MA	SS/FFP	TACOM	Mar-98	Apr-99	Ω	151		9 N	
FY 99	Lockheed-Martin, Pittsfield, MA	SS/FFP	TACOM	Mar-99	Apr-00	4	154		S.	
4. Primary Power Unit										
FY 99	TBD	TBD	TACOM	Dec-98	Apr-00	4	190		2°	
5. Environmental Control Unit										
	ТВО	TBD	TACOM	Dec-98	Apr-00	4	42	-	2°	
6. Bio Chem Unit										
FY 99	TBD	TBD	TACOM	Dec-98	Apr-00	14	118		2	
7. Kevlar Armor										
FY 99	ТВО	TBD	TACOM	Dec-98	Apr-00	14	29		_S	
9. Mission Component Integration							**************************************			•
FY 97	LM West Dev Lab, San Jose, CA	FP-Op	CECOM	Feb-97	Apr-98	ro.	365		2	
FY 98	LM West Dev Lab, San Jose, CA	FP-Op	CECOM	Dec-97	Apr-99	သ	295		8	
FY 99	LM West Dev Lab, San Jose, CA	FP-Op	СЕСОМ	Dec-98	Apr-00	4	221		2	
REMARKS: LM West Dev Lab - Lockheed-Martin Western Development Labs	estem Development Labs									



FY 99: Breakout of Primary Power Unit, Environmental Control Unit, Bio Chem Unit, and Kevlar Armor

FY 98: High vehicle cost reflects reduced business base



	RIIDGET PROC	RIIDGET PROCUREMENT HISTORY AND	PLANNIR	RY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	97
R APPROPRIATION	B APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	RE			
	PROCUREMENT OF WPNS	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles	ibat Vehicles				COMMAND	COMMAND & CONTROL VEHICLE (G84200)	11CLE (G84	200)	
	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY Each	\$000	SPECS AVAIL NOW	SPEC IF REV REQ'D	IF YES WIA
10. Veh Inter	10. Veh Inter/Intra Communication System FY 98 FY 99	LM West Dev Lab, San Jose, CA LM West Dev Lab, San Jose, CA LM West Dev Lab, San Jose, CA		CECOM	Feb-97 Dec-98	Apr-98 Apr-99 Apr-00	ro ro 4	45 45		2 2 2	
REMARKS:	I LM West Dev Lab - Lockheed-Martin Western Development Labs	l stem Development Labs									
	FY 98: High vehicle cost reflects reduced business base	d business base									

FY 99: Breakout of Primary Power Unit, Environmental Control Unit, Bio Chem Unit, and Spall Liners(Kevlar)



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Exhibit P-21 Product

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	CODE "B" ITEM D	M DESCRIPTION	Februa	February 1997	80	DD-COMP(AR)1092	
APPROPRIATION PROCUREMENT OF WPNS & TRKD CMBT VEHS	& TRKD CMBT VEHS	ACTIVITY Tracked Combat Vehicles	P-1 ITEM NOMENCLATURE COM	CLATURE COMMAND &	URE COMMAND & CONTROL VEHICLE (G84200)	(G84200)	
1. CURRENT DEVELOPMENT AND TEST STATUS	T STATUS						
					SCHEDULE DATE		
			CURRENT	LAST RPTD	REA	REASON FOR DELAY*	
			(1)	(2)		(3)	
a. DEV TEST & EVAL (DT&E)		PLAN / ACTUAL	Aug-95	Aug-95			
b. INITIAL OPER TEST & EVAL (IOT&E)		PLAN / ACTUAL	Mar-99	Mar-99			
G. OPEH LEST & EVAL (CLAE)	ĝ	TEAN ACTOR					
OR PERFORMANCE SPECIFICATIONS	(s		Sep-98	Sep-98			
2. ESTIMATED DATE OF APPROVAL FOR SERVICE USE	OR SERVICE USE						
3. EQUIPMENT ITEM(S) TO BE REPLACED	ED						
M577							
4. EXTENT OF IMPROVEMENT OVER ITEM(S) OF EQUIPMENT	TEM(S) OF EQUIPMENT TO B	TO BE REPLACED					
Increased servivability, mobility, responsiveness, and growth. A Desert Storm Initiative.	responsiveness, and gro	wth. A Desert Storm Initiative.					
5. DEVELOPMENT CONTRACT INFORMATION	IATION						
CONTRACTOR NAME	PLANT LOCATION (2)	COMPONENT (3)	THROUGH 1996	1997	1998	1999	BEYOND BYS
ADDLP	San Jose CA/York PA		61.1	2.8	1.8		
Other Contract	San Jose CA		18.0	1.1			
In House/Other			16.2	3.8	7.1		
TOTAL RDT&E FUNDING			95.3	7.7	8.9		
6. REMARKS							
TDP development relates to spares only and not to the entire vehicle due to Army templating.	and not to the entire vehicle du	e to Army templating.					
	The Additional engage is required	• Defendence carries on estembare to D.10 if additional ename is required to adamstaly avolate delay from pravious data					

						DATE		
	BUC	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	IEET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	rivity			P-1 ITEM NOMENCLATURE	Ш			
PROCUREME	PROCUREMENT OF WPNS & THKD CMBT VEHS /Tracked Combat Vehicles	3T VEHS /Tracked Combat	Vehicles			CARRIER, MOD (GB1930)	OD (GB1930)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	48.0	43.0	20.2	34.0	41.3	41.2	44.7	45.4

to ensure safety, provide operational stability and reduce logistical burden. Operations Just Cause and Desert Storm highlighted the need to upgrade shelters, mortars, command centers, and cargo. The current fleet will be required for at least 20-30 more years and must be continuously modified each mechanized division. These carriers provide essential transport for troops, antitank weapons, air defense systems, electronic warfare (EW) DESCRIPTION: The M113 Family will consist of 21,400 vehicles on the FY96 Table of Authorization and Equipment with almost 700 carriers in he mobility and chemical protection of this fleet, to further enhance performance, reliability, survivability, and supportability.

USTIFICATION:

- 1. CREW CHEMICAL PROTECTION: Provides vehicular adaptation, attachments, and connections to permit use of the current Ventilated Face electrical installation hardware for use in conjunction with an individual's personal M14A1 face mask. Permits operational use of the vehicle in a Mask (VFM) subsystems. The VFM system includes the necessary blowers, filters, heaters, hoses and switches, and vehicle and subsystem nuclear, biological, and chemical (NBC) environment.
- 2. DRIVER'S NIGHT VIEWER: The M19 image intensifier currently used on the M113 FOV has limited night vision. The AN/VVS-2(V)1A driver's night viewer has been adapted for use on the M113 FOV. The driver's night viewer enhances operational capability by providing capability for travelling in darkness and low visibility conditions equal to that on the Abrams and Bradley forces.
- diesel engine provides horsepower which increases vehicle survivability/mobility. Coupling the higher output engine with the improved transmission 3. BLOCK 1: Provides improvements to enhance crew survivability and mobility to meet operational requirements. Addition of a turbo charged results in a more reliable power train. The spall liner and external fuel tanks significantly improve crew survivability.
- 4. FUEL SYSTEM: The M577A2 currently incorpoates a 4.2KW mogas powered generator. The Army transitioned to all dlesel generators in the mid 1980's and a new diesel generator is scheduled to be available by FY 96. This modification incorporates additional fuel lines to permit the generators to use on board vehicle diesel fuel. This modification will be incorporated at a rate consistent with receipt of new generators.

Item No. 13

BUDGET ITEM JUSTIFICATION SHEET	EET P-1 ITEM NOMENCLATURE	DATE February 1997
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles		CARRIER, MOD (GB1930)

PROCURE	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	VEHS /Tracked Combat Vehic	Ses			CARRIER, MOD (GB1930)	381930)	
OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
1-91-05-4311	Crew Chemical Protection	rotection						
Oper Capability	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1-94-05-4463	Driver's Night Viewer	wer						
Oper Capability	1.4	1.1	1.6	4.8	1.4	1.4	1.4	1.4
1-84-05-4026	Block I						,	
Oper Capability	276.9	40.1	16.9	30.6	37.7	37.6	41.1	41.8
1-91-05-4312	Fuel Systems							
Oper Capability	3.4	0.8	0.7	9.0	1.2	1.2	1.2	1.2
Totals	282.7	43.0	20.2	34.0	41.3	41.2	44.7	45.4
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				WOOD CONTINUE ALLA LION COLVINIA Date)		Date		
			(TOA. D	ollars in	(TOA. Dollars in Millions)			February 1997	26
	ž								
System/Modification	EY 1996	FY 199Z	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
CARRIER, MOD									
GB1930									
Crew Chemical Protection	0.0					0.4			2.9
Driver's Night Viewer	0.0	0.0		0.0	0.0				0.0
Block I	7.2					5.2			43.7
Fuel Systems	0.5		0.1				0.2	0.3	2.0
Totals	7.4	9.2	6.4	2.0	5.4	5.9	5.8	6.5	48.6

	INDIVIDUAL MODIFICATION Date	February 1997
MODIFICATION TITLE:	Crew Chemical Protection 1-91-05-4311	
MODELS OF SYSTEMS AFFECTED:	M113A2, M113A3, M577A2	
DESCRIPTION / JUSTIFICATION:		
Provides vehicular adaptation, system includes the necessary conjunction with an individual's environment.	Provides vehicular adaptation, attachments and connections to permit use of the current Ventilated Face Mask (VFM) subsystem. The VFM system includes the necessary blowers, filters, heaters, hoses and switches, and vehicle and subsystem electrical installation hardware for use in conjunction with an individual's personal M14A1 face mask. Permits operational use of the vehicle in a nuclear, biological, and chemical (NBC) environment.	subsystem. The VFM tallation hardware for use in gical, and chemical (NBC)
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
Preliminary Design Review:	PLANNED	ACCOMPLISHED N/A
Critical Design Review:	N/A	
Contractor Test and Evaluation:	N/A	
Development Test and Evaluation:	luation: N/A	
Inital Operational Test and Evaluation:	Evaluation:	
IPR Production Decision	N/A	
TDP Available:		Feb-92

MODIFICATION TITLE (Cont):		Ō	ew Ch	emica	Crew Chemical Protection 1-91-05-4311	ection	1-91-0	5-431	_											
FINANCIAL PLAN: (\$ in Millions)	FV 1996	900																		
	and Prior	rior	FY 1997	766	FY 1998	86	FY 1999	66	FY 2000	8	FY 2001	01	FY 2002	02	FY 2003	03	75		TOTAL	AL
	Qfy	\$	Oth	49	Q _t	69	Qty	€9	Oth	\$	Qty	\$	Oth	\$	Qty	49	Qty	€9	Qty	8
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits	382	1.0	188	0.5	221	9.0	216	9.0	211	9.0	207	9.0	202	9.0	198	9.0	3224	10.9	5049	16.0
Installation Kits Nonrecurring											•••									
Equipment																				
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Engineering Change Orders												-								
Data										-		_								
Training Equipment								-												
Support Folipment											-									
Other								-												
																	-			
interim Contractor Support																				
Installation of Hardware					1	-												-		
FY 1996 & Prior Eqpt Kits			287	0.5	95	0.2													382	0.7
FY 1997 Eqpt Kits					141	0.2	47	0.1											188	0.3
FY 1998 Eqpt Kits							166	0.3	55	0.1								-	221	0.4
FY 1999 Eqpt Kits									162	0.3	54	0.1							216	0.4
FY 2000 Eqpt kits											159	0.3	52	0.1					211	0.4
FY 2001 Eqpt kits													156	0.3	51	0.1			207	0.4
FY 2002 Egpt kits															152	0.3	20	0.1	202	0.4
FY 2003 Eqpt kits																	198	0.4	198	0.4
(FY(TC) Eqpt (xx kits)												12-1					3224	7.3	3224	7.3
Total Installation Cost			287	0.5	236	4.0	213	4.0	217	0.4	213	4.0	208	4.0	203	0.4	3472	7.8	5049	10.7
Total Procurement Cost		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		18.7		26.7
METHOD OF IMPI EMENTATION: Demos	- Popol				ADMINISTRATIVE I EADTIME	TPATI	75 1 50	TIME		2	Months	۵	- ANITON I EADING	I NOIT	TOVE	Ų	9	Months		
Contract Dates:		FY 1997:		Jan 97			FY 1998:		Õ	97		LIL	FY 1999:		Dec	Dec 98				
		1																		



Prior Prior	FY 1996	1 2 3 4 1 3 3 4 3 4	FP 1896 FP 1897 FP 1898 FP 1899 FP 189	Installation Schedule:		ČŽ	emice	75	tectic	1-C	Crew Chemical Protection 1-91-05-4311	1311									Date		_	recidary 1991	100				
Reptor 1 2 3 4 1 3 4 1 3	Refine 1 2 3 4	SPrior 1 2 3 4 1 2 8 4 1 2 3 4	S Prior 126 127 127 47		FY 1996		FY 19	197			FY 1	866			FY 1	666			FY 2	000			FΥ	:001					
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Friedrich 127 127 47 47 47 47 47 47 48 6 55 55 55 55 55 55 55 55 55 55 55 55 5	R Prior 128 127 127 47 47 47 47 56 55 55 55 55 55 56 56 56 56 56 56 56	S Prior 128 127 127 47 47 47 47 47 55 55 55 55 55 55 55 55 55 55 55 55 55	8 Prior 128 127 47	puts																									
B-Prior 96 96 95 95 55 55 55 55 57	R Prior 96 96 95 55 55 55 55 56 57 7 7 7 7 7 7 7 7 7 7	8 Prior 96 96 95 95	8 Prior 36 96 95 95 57 74 47 47 47 47 47 47 47 58 55 55 55 56 57 54 54 54 54 54 54 54 54 54 54 54 54 54	Y 1996 & Prior			128	127	127																				ਲ
S-PHor S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S	From 96 96 95 55 55 55 56 57 54 54 54 54 54 54 54 54 54 54 54 54 54	8 Prior 96 96 95 95	8 Prior 96 96 96 95 15 1 47 47 47 47 47 56 55 55 55 55 55 55 55 55 55 55 55 55	Y 1997						47		47	47																₩
8 Prior 96 96 95 95 1 47 47 47 47 6 5 5 5 5 6 6 6 6 7 6 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7	Fry 2000	8 Prior 96 96 95 96	8 PHor 36 96 95 95	V 1998										56	55	55	55												8
8 Prior 96 96 95 95	FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2005 FY 2006 FY 200	FY 2000 FY 200	FY2000 FY2001 FY2002 FY2003 FY2004 FY	Y 1999														54	54	54	54			_					Ŕ
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R Prior 96 96 95 95 47 47 47 47 47 47 47 47 47 47 47 47 47	Reptor 96 96 95 95	8 Prior 96 96 96 96 97 47 47 47 47 47 47 47 47 47 47 47 47 47	R Prior 96 96 95 95	utputs																									
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FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2004 FY 2005 FY 200	FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2004 FY 2005 FY 2006 FY 200	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 200	FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2004 FY 2004 FY 2004 FY 2004 FY 2004 FY 2004 FY 2004 FY 2004 FY 2004 FY 2004 FY 2005 FY 2004 FY 200	V 1997							47	47	47	47															=
FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2003 FY 2004 FY 2005 FY 2005 FY 2006 FY 200	FY2000 FY2001 FY2002 FY2002 FY2004 FY2004 FY2005 FY2004 FY2005 FY	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2004 FY 2005 FY 2006 FY 200	FY 2000 FY 2001 FY 2001 FY 2002 FY 2002 FY 2003 FY 2003 FY 2004 FY 200	V 1998											56	55	55	52											8
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 FY2005 FY2006 FY2006 FY2005 FY	FY 2000 FY 2001 FY 2001 FY 2003 FY 2003 FY 2004 FY 2005 FY 2005 FY 2006 FY 200	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 200	FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 1 2 3 4 1 3 4 1 2 3 4 1	1990															54	54									Ø
FY2000 FY2001 FY2001 FY2002 FY2003 FY2004 FY2005 FY	FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2004 FY 2005 FY 2005 FY 2006 FY 2005 FY 2006 FY 200	FY 2000 FY 2001 FY 2001 FY 2001 FY 2003 FY 2003 FY 2004 FY 2005 FY 2006 FY 200	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 200	666																									
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50 50 49 49	50 50 49 49	:	50 50 49	Y 2002															51				_						C)
lemarks:	lemarks:	lemarks:	lemarks:	Y 2003																			5(
				temarks:																									

	INDIVIDUAL MODIFICATION		Date February 1997	997
MODIFICATION TITLE:	Driver's Night Viewer 1-94-05-4463			
MODELS OF SYSTEMS AFFECTED:	M113 Family of Vehicles			
DESCRIPTION / JUSTIFICATION:				
The M19 image intensifier cur for use on the M113 FOV. The viribility conditions and to the	The M19 image intensifier currently used on the M113 FOV has limited night vision. The AN/VVS-2(V)1a driver's night viewer has been adapted for use on the M113 FOV. The driver's night viewer enhances operational capability by providing capability for travelling in darkness and low	ne AN/VVS-2(V)1a c providing capability	Iriver's night viewer has been ad I for travelling in darkness and I	lapted ow
VISIDIIIIY COTIUMIONS EQUAL TO ILL	visibility conditions equal to triat on the Abrams and bradiey forces.			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:				
Preliminary Design Revlew:		PLANNED	ACCOMPLISHED N/A	
Critical Design Review:			N/A	
Contractor Test and Evaluation:	luation:		N/A	
Development Test and Evaluation:	valuation:		N/A	
Inital Operational Test and Evaluation:	rd Evaluation:		N/A	
IPR Production Decision			N/A	
TDP Available:			Sep 94	



					<u>IN</u>	VIDUAL	MODIF	INDIVIDUAL MODIFICATION	z						۵	Date		February 1997	y 1997	
MODIFICATION TITLE (Cont):		۵	Driver's Night			r 1-94-	Viewer 1-94-05-4463	63												
FINANCIAL PLAN: (\$ in Millions)	EV 1006	900																-		
	and Prior	Prior	FY 1997	266	FY 1998	988	FY 1999	66	FY 2000	00	FY 2001	0.1	FY 2002	02	FY 2003	603	TC		TOTAL	7.
	ğ	89	ð	89	δţ	69	ð	69	ð	69	Qt	69	Oth	ક્ક	₹	69	ð	8	QÎ QÎ	€
RDT&E PROCUREMENT Kit Quantity Installation Kits Installation Kits	223	4.1	168	÷	239	1.6	263	. 8.	200	4.	196	4.	192	4.	188	4.	1931	15.9	3600	27.4
Equipment Equipment Nonrecurring Engineering Change Orders																				
Data Troining Equipment												**								
Support Equipment																				
Other Interim Contractor Support																		10.00		
Installation of Hardware	3		Q T																000	
FY 1996 & Prior Eqpt Kils FY 1997 Eqpt Kils	ò		90		168														168	
FY 1998 Eqpt Kits							239												239	
FY 1999 Eqpt Kits									263		-		· · · · · ·						263	
FY 2000 Eqpt kits											200		196						200	
FY 2002 Eqpt kits															192				192	
FY 2003 Eqpt kits																	188		188	,
(FY(TC) Eqpt (xx kits)														1		1	1931	0.1	1931	0.1
Total Installation Cost	67		156		168		239		263		200		196		192		2119	0.1	3600	0.1
Total Procurement Cost		1.4		1.1		1.6		1.8		1.4		1.4		4.1		1.4		16.0		27.5
METHOD OF IMPLEMENTATION: Depot		FY 1997:		Jan 97	ADMINI	STRATI	ADMINISTRATIVE LEADTIME: FY 1998:	DTIME:		3 N Dec 97	Months	u. u.	PRODUCTION LEADTIME: FY 1999: Dec 98	MOITS	EADTI.	Dec 98	80	Months		
Delivery Date:		FY 1997:		Aug 97			FY 1998:		4	Aug 98		**	FY 1999:		Au	Aug 99				

RPHOR 1 2 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 4 1	1 2 3 4 1 1 2 3 4 1 1 3 4 1 3 4 1 1 3 4 1 3 4	RY 1996 & Prior & Prior	74 499.	41		₹ 21	1998	41	-	FY 199			-	Y 2000	_		L	Y 2001				
8 Prior 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 3 4 1 3 4 1 1 3 4 1 3	8 Prior 1 2 3 4 1 2 42 42 42 42 42 42 42 42 42 42 42 42 4	& Prior & Prior & Prior		41		C)I	m	41	-													
8 Prior 42 42 42 42 60 60 69 66 66 66 65 FF FF 2004 FF 72004 FF 72005 FF 72	8 Prior 42 42 42 42 42 42 42 42 42 42 42 42 42	1996 & Prior 1997 1998 1999 Itputs 1996 & Prior 1997 1999		•					ı									m				Total
# Prior 42 42 42 42 42 42 42 42 42 42 42 42 42	# Prior 42	1996 & Prior 1997 1999 1999 & Prior 1997 1998		•																		
42 42 42 42 66 66 66 66 66 66 66 66 67 FY 2000	Rethor	1998 1999 tputs 1996 & Prior 1997 1998		•																		
A Prior 42 42 42 42 42 42 42 42 42 42 42 42 42	8 Prior 42 42 42 42 42 42 42 42 42 42 42 42 42	1998 1996 & Prior 1996 1997 1998																				168
RePrior 42 42 42 42 42 60 60 59 66 66 66 65 FY 2004 FY 2005 FY	Retion 42 42 42 42 66 66 66 66 FY 2000 FY 2000 FY 2001 1 2 3 4 1 1 2 3 4 1 1 3 4 1 3 4 1 1 3 4 1 3 4 1 3 4 1 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3	1999 Aputs 1996 & Prior 1997 1998						9	09	09	29											239
8 Prior 42 42 42 42 60 60 69 66 66 66 65 FY 2000 FY 2000 FY 2001 FY 2000 FY 2001 FY 2000 FY 20	8 Prior 42 42 42 42 60 60 69 66 66 66 66 67 FY 2000 FY	tputs 1996 & Prior 1997 1998										99			92							263
## 42 42 42 42	A Prior A 42 42 42 60 60 69 69 65 65 65 65 65 65 65 65 65 65 65 65 65	1996 & Prior 1997 1998 1999																				
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FY2000 FY2001 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2 3	FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 1 2 3 4 1 1 2 2	1999							09	09	09	29										239
FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 200	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 200															35						263
1 2 3 4 1 2 3	1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 1 3 3 4 1 3 3 4 1		FY 2000			FY 20	9		ĬL	Y 2002			Ŧ	2003			FY	1004		ш	-Y 2005	
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50 50 50 49 49 49 48 48 48 48 47 47 47 47 41 41 41 41 41 41 41 41 41 41 41 41 41	50 50 50 49 49 49 48 48 48 47 47 47	2003													7				7			188
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. 47 47 47	47 47 47	2002														89						192
emarks:	smarks:	2003														4						188
		marks:																				



February 1997

INDIVIDUAL MODIFICATION

Block I 1-84-05-4026

MODIFICATION TITLE:

MODIFICATION TITLE (Cont):		8	lock I	1-84-0	Block I 1-84-05-4026															
FINANCIAL PLAN: (\$ in Millions)	ĒΥ	FY 1996																		
	and	and Prior	FY 1997	266	FY 1998	866	FY 1999	66	FY 2000	00	FY 2001	01	FY 2002	02	FY 2003	003	TC	0	TOTAL	Ā
	Qţ	69	Qfy	\$	Q.	€9	ð		OF.	69	Off	69	Ş O	69	\$	69	Ş O	69	Q O	€.
RDT&E		1.0																,		7
PROCUREMENT																				•
Kit Quantity						-														
Installation Kits	2334	223.4	258	27.7	99	7.1	226	25.8	230	26.8	222	26.3	245	29.7	238	7 00	2003	071 0	2000	0 633
Installation Kits Nonrecurring							Ì		}				2		9	7.07	5003	3	3005	, ,00
Equipment		3.4																		C
Equipment Nonrecurring				-																ò
Engineering Change Orders																-				
Data		40.2		2.9		2.9		3.0		rc.		c,		n G		T.		7 00		5
Training Equipment									•	5		i)		†		4.00		103.4
Support Equipment							_							-						
Other											•									
Interim Contractor Support									-					•						
FDT		C		Č			•			7				,						
TPF		0		- 6		. 0		7		- 0		- 6		5.0		0.0		9.0		1.3
Installation of Handware		9		9		0.0	-	† 5		9.		 		8.0		9.0		7.7		16.1
FY 1996 & Prior Eapt Kits	379	7.2	363	8																
FY 1997 Eapt Kits	5	!		5	258	0	_		_										742	15.3
FY 1998 Font Kits					2	2	o o	*										•	907	5.9
FY 1999 Eapt Kits		•			-		9	<u>†</u>	000										99	4.
FY 2000 Equt kits								_	220	4. D	000	C							226	4.9
EV 2001 East Life											230	U N							230	5.2
T 2000 Edpt Nits													222	5.2					222	5.2
FY ZUUZ Eqpt Kits				•											245	5.8			245	5.8
FY 2003 Eqpt kits																	238	5.7	238	5.7
(FY(TC) Eqpt (xx kits)									_			_					2003	54.1	2003	54.1
Total Installation Cost	379	7.2	363	8.1	258	5.9	99	1.4	226	4.9	230	5.2	222	5.2	245	5.8	2241	59.8	4230	103.5
Total Procurement Cost		276.9		40.1		16.9		30.6		37.7		37.6		41.1		41.8		372.8		895.5
METHOD OF IMPLEMENTATION: Depot/Contractor	l: Depot/C	Contract	'n	Q.	ADMINISTRATIVE LEADTIME:	TRATIV	ELEAD	TIME		Σ 6	Months	ď	PBODUCTION I EADTIME:	TION	FADTIA	π	α	Months		
Contract Dates:	_	FY 1997:		Jan 97		Œ	FY 1998		2	7		Ĺ	EV 4000			00000		2000		
									3	0		L	מממ.		בפר	200				



R Priori 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4<	Installation Schedule:		ock –	1-84	Block I 1-84-05-4026	026													Date		_	February 1997	1997					
Retion 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 <th></th> <th>FY 1996</th> <th></th> <th>F</th> <th>1997</th> <th></th> <th></th> <th>_</th> <th>FY 199</th> <th>60</th> <th></th> <th></th> <th>FY 19</th> <th>66</th> <th></th> <th></th> <th>FY:</th> <th>3000</th> <th></th> <th></th> <th>Ŧ</th> <th>2001</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>		FY 1996		F	1997			_	FY 199	6 0			FY 19	66			FY:	3000			Ŧ	2001						
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8 Prior 379 91 91 90 65 64 64 17 17 16 16 57 56 56 F6 F7 2004	Inputs																											
8 Prior 379 91 91 91 90 65 64 64 17 17 16 16 16 57 56 56 FIVE 2004	FY 1996 & Prior	379					06																					7
8 Prior 379 91 91 91 90 65 64 64 64 64 17 17 16 16 57 57 56 56 FY2004 FY2000 FY2001 FY2002 FY2002 FY2003 FY2004 FY2004 <t< td=""><td>FY 1997</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>65</td><td>64</td><td>64</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>258</td></t<>	FY 1997								65	64	64																	258
Rethor 379 91 91 91 90 65 64 64 1 17 17 16 16 16 17 17 16 16 16 17 17 18 16 16 17 17 18 16 16 17 17 18 16 16 18 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	FY 1998											17	17	16	16													99
& Prior 379 91 91 90 65 64 64 17 17 16 16 57 57 56 56 56 FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 FY 2004 FY 20	FY 1999															22	22											226
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Outputs																											
FY2000 FY2001 FY2002 FY2003 FY2004 FY	FY 1996 & Prior	379					06																					7
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3	FY 1997								92	64	64																	258
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	INDIVIDUAL MODIFICATION	Fehrian 1007
MODIFICATION TITLE:		Sect America
MODELS OF SYSTEMS AFFECTED:	M577A2 Command Post Carrier	
DESCRIPTION / JUSTIFICATION:		
The M577A2 currently incorporates a 4.2 KW mog new diesel generator became available in FY 96. vehicle diesel fuel. This modification will be incorp	The M577A2 currently incorporates a 4.2 KW mogas powered generator. The Army transitioned to all diesel generators in the mid 1980's and a new diesel generator became available in FY 96. This modification incorporates additional fuel lines to permit the generators to use on board vehicle diesel fuel. This modification will be incorporated at a rate consistent with receipt of new generators.	980's and a on board
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	FELOPMENT MILESTONES:	
Preliminary Design Review:	PLANNED ACCOMPLISHED N/A	
Critical Design Review:	N/A	
Contractor Test and Evaluation:	ation:	
Development Test and Evaluation:	aluation:	
Inital Operational Test and Evaluation:	Evaluation: N/A	
IPR Production Decision	N/A	
TDP Available:	Sep-92	





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MODIFICATION TITLE (Cont):		표	Fuel Systems		1-91-05-4312	5-4312														
FINANCIAL PLAN: (\$ in Millions)	EV 4006	900																		
	and Prior	oso Prior	FY 1997	197	FY 1998	38	FY 1999	6	FY 2000	8	FY 2001	01	FY 2002	102	FY 2003	003	TC	O	TOTAL	FAL
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RDT&E PROCUREMENT Kit Quantity Installation Kits Installation Kits	364	3.2	22	0.2	65	9.0	64	0.4	411	Ξ	92	6:0	100	0.	88	0.9	612	6.9	1500	15.2
Equipment Nonrecuring					*****															
Data										•										
Training Equipment															***************************************					
Other									. •											
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt Kits	91	0.2	273	9.0															364	0.8
FY 1997 Eqpt Kits					22	 	-	1											22	0.1
FY 1998 Eqpt Kits							65	O.22											65	0.5
FY 1999 Eqpt Kits									43	0.1							-		43	0.1
FY 2000 Eqpt kits											114	O	8	0					114	0.3
FY 2002 Eapt kits													3	i	100	0.3			100	0.3
FY 2003 Eapt kits																	88	0.2	88	0.2
(FY(TC) Eqpt (xx kits)							<u>.</u>										612	1.8	612	1.8
Total Installation Cost	9	0.2	273	9.0	22	0.1	65	0.2	43	0.1	114	0.3	92	0.2	100	0.3	700	2.0	1500	4.0
Total Procurement Cost		3.4		0.8		0.7		9.0		1.2	H	1.2		1.2		1.2		8.9		19.2
METHOD OF IMPLEMENTATION: Depot				•	ADMINISTRATIVE LEADTIME:	TRATIV	E LEAD	TIME:		4 ⋝	Months	a.	PRODUCTION LEADTIME:	CTION	LEADT	IME:	ស	Months		
Contract Dates:		FY 1997: FY 1997:		Jan 97 Apr 97		Lί	FY 1998: FY 1998:		ŌΚ	Dec 97 Apr 98		<u>ш</u> Ц	FY 1999: FY 1999:		ăĀ	Dec 98 Anr 99				
Delivery Date.		200				•			•	,		•	000			3				

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	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	IEET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	INITY			P-1 ITEM NOMENCLATURE	m			
PROCUREME	NT OF WPNS & TRKD CME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	Vehicles			FIST VEHICLE (FIST VEHICLE (MOD) (GZ2300)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	6	15	32	46	89	85
COST (in millions)	0.0	0.0	14.7	16.2	29.3	36.6	51.7	64.1

DESCRIPTION: The Bradley Support Vehicle (BFIST) conducts two primary missions on the heavy force battlefield. The first mission is fire mission enemy targets for delivery of various forms of laser guided munitions. The Fire Support Team (FIST) is attached to a mechanized infantry or armor assigned to division cavalry troops where they perform a similar mission for the Division Commander. There is no technical difference between the planning and execution for maneuver company commanders. The second is targeting enemy positions with conventional munitions or designating execution. Designating targets for special munitions is a secondary mission. The COLT is primarily focused on preparing key and decisive terrain company and is primarily responsible for developing and executing fire support plans that enable success on the battlefield. The Bradley based Combat Observation Lasing Team (COLT) is typically placed in direct support of the maneuver brigade commander. As a brigade commander COLT and FIST Bradley vehicles. The BFIST will accomplish both missions. The FIST team is typically engaged in fire mission planning and asset, the COLT will observe key and decisive terrain of brigade interest and direct artillery assets as planned on this terrain. COLTs are also for targeting conventional munitions or designating special artillery or Air Force delivered munitions.

forces during Operation Desert Storm (ODS). Additionally, the M981 displayed a number of operational deficiencies and shortcomings remedied by JUSTIFICATION: The current Fire Support Vehicle M981 was unable to maintain the operational tempo of Bradley/Abrams equipped maneuver the BFIST design. Exhibit P-40

WTCV Cost Analysis		PROCUR	PROCUREMENT OF WPNS & TRI	VPNS & TRKD	PROCUREMENT OF WPNS & THE CMBT VEHS/1/	B. WEA	ON FIST VEHICLE	PON FIST VEHICLE (MOD) (GZ2300)		C. MANUFACTURER NAME United United	MANUFACTURER NAME United Defense Limited	D. DATE Febn	TE February 1997
WTCV	Q		FY 96	FY 96	S	FY 97			FV 98	Partnership (UDLP)	io (UDLP)	EV 00	
Cost Elements	8	TotalCost		UnitCost	TotalCost	QÎ.	UnitCost	TotalCost	ð	UnitCost	TotalCost	ð	UnitCost
	+	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Hardware Cost													
1. Vehicle Upgrade								7152	o	795	12188	15	813
SUBTOTAL								7152	7		12188	***	
Non Recurring Production 2. Engineering Contractor 3. Engineering Government 4. Program Management Administration 5. Reimbursable Matrix Support 6. Fielding								5002 1770 73 659			1349 1620 80 728 204		
SUBTOTAL								7504			3981		
TOTAL								14656			16169		



BUDGET PRC	BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	D PLANNIN	IG EXHIBIT (P-5A)					DATE Fe	February 1997	4
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE	OMENCLATU	RE			
PROCUREMENT OF WPN	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Cor	/ Tracked Combat Vehicles				FIST	FIST VEHICLE (MOD) (GZ2300)			
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	OTY Each	UNIT COST \$000	SPECS AVAIL NOW	SPEC IF REV REQ'D	IF YES W/A
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REMARKS:										

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APPROPRIATION 1. CURRENT DEVELOPMENT OF WINS & TRKD CABT VEHS 1. CURRENT DEVELOPMENT AND TEST STATUS 1. CURRENT DEVELOPMENT AND TEST STATUS 1. CURRENT DEVELOPMENT AND TEST STATUS 2. DEV TEST & EVAL (DT&E) 3. DEVIAL OPER TEST & EVAL (DT&E) 4. AVAIL DATE OF TECH DATA PKG (TDP) 4. AVAIL DATE OF TECH DATA PKG (TDP) 5. DETAINATED DATE OF TECH DATA PKG (TDP) 6. OPER TEST & EVAL (DT&E) 6. OPER TEST & EVAL (DT&E) 6. OPER TEST & EVAL (DT&E) 6. SETINATED DATE OF TECH DATA PKG (TDP) 6. OPER TEST & EVAL (DT&E) 7. SETINATED DATE OF TECH DATA PKG (TDP) 7. SETINATED DATE OF APPROVAL FOR SERVICE USE 7. SETINATED DATE OF APPROVAL FOR SERVICE USE 7. SETINATED DATE OF APPROVAL FOR SERVICE USE 7. SETINATED DATE OF APPROVAL FOR SERVICE USE 7. SETINATED DATE OF APPROVAL FOR SERVICE USE 7. SETINATED DATE OF TECH DATA PKG (TDP) 9. DEVELOPMENT CONTRACT INFORMATION COMPONENT 1. DID	P-1 ITEM NOMENCLATURE		DD-COMP(AR)1092	DD-COMP(AR)1092
Tracked Combat Vehicles ACTUAL ACTUAL ACTUAL ACTUAL ACTUAL ACTUAL (COMPONENT (3)		JRE		
Abrams equipped maneuver forces. COMPONENT (3)			FIST VEHICLE (MOD) (GZ2300)	
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Abrams equipped maneuver forces. COMPONENT (3)	(E)	(2)	(3)	
Abrams equipped maneuver forces. COMPONENT (3)	Jun-98		-	
Abrams equipped maneuver forces. COMPONENT (3)	Mar-98			
Abrams equipped maneuver forces. COMPONENT (3)				
Abrams equipped maneuver forces. COMPONENT (3)	Sep-97			
Abrams equipped maneuver forces. COMPONENT (3)				
COMPONENT (3)	Se.			
ANT LOCATION COMPONENT (2) San Jose, CA				
PLANT LOCATION COMPONENT (2) (3) San Jose, CA				
San Jose, CA	11996		1999	BEYOND BYS
	30.4	(5) (6)	(7)	(8)
				0.1
		,		
TOTAL RDT&E FUNDING	32.00	204		c

Pelerence entries on attachment to P-19 if additional space is required to adequately explain delay from previous date.

						DATE		
	BND	BUDGET ITEM JUST	TIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	E			
PROCUREMEN	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat \	3T VEHS /Tracked Combat	Vehicles			BFVS SERIES (BFVS SERIES (MOD) (GZ2400)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	93.1	119.0	61.2	46.6	9.09	57.5	65.2	2'99

safety mod, the A2 Card Retrofit, will prevent inadvertent TOW missile launch. Additionally, there is the Presidentially directed HALON Replacement improvements are 6 ECPs which will correct deficiencies identified in Operation Desert Storm and include: Laser Range Finder, Position Navigation Program. Most of these modifications will be applied concurrently in "blocks" to reduce application cost and inconvenience to the unit. The programs Survivability Kit and the 600HP power pack. The Optically Improved Backup Sights and Periscopes provide eye protection for the crew against near modification kits for the Bradley Fighting Vehicle to improve lethality, survivability, mobility and situational awareness. The Operation Desert Storm System, Equipment Restow Improvement, Combat Identification System, Drivers Vision Enhancer and Missile Countermeasure Device. The A1 to Intercommunications System, TOW mod for AO, Armor Tiles, Engine Access Door Lift Pump and TOW Subsystem Support Equipment Mod. One in these P-Forms were initiated to meet requirements identified to improve the Bradley performance and correct deficiencies. Reduced Bradley A2 conversion effort increases the vehicle survivability and brings the vehicle up to the current A2 configuration, with the addition of the High DESCRIPTION: The funds appropriated, budgeted, and programmed in this budget line will provide for the procurement and application of term lasers. Operational improvements are the Transmission Electronic Controller, the Armament Control Unit Pillow Block, the Vehicle Fighting Vehicle capability, survivability, and mobility will occur if these modifications are delayed or reduced.

BUDGET ITEM JUSTIFICATION SHEET	DATE February 1997
APPROPRIATION / BUDGET ACTIVITY	
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	BFVS SERIES (MOD) (GZ2400)

OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	EY 2001	EV 2002	EV 2003
1-84-05-4038	A1-A2 Conversion					1002 1	1 5002	2003
Oper. capability	345.7	11.5	13.5	11.0	0.0	0	0	C
1-92-05-4404	A2 ODS Mods						25	2
Oper. capability	69.3	48.9	34.6	29.5	1.8	0.0		C
1-90-05-4282	Transmission Electronic Controller (TEC)	onic Controller (2:5	2.5
Oper. capability	5.8	4.1	3.8	3.4	0.0	00		C
1-86-05-4115	Ol Backup Sights/Periscopes	riscopes					0	0.0
Oper. capability	19.5	0.7	0.0	0.0	0.0	00	0	C
1-91-05-4314	ACU Pillow Block Mod	po					2	0.0
Oper. capability	5.7	0.9	0.7	0.0	0.0	00	0	c
1-90-05-4284	Vehicle Intercom System					25	2	0.0
Oper. capability	8.5	3.4	2.2	0.0	0			C
1-93-05-4441	DECA					2	2	0.0
Oper. capability	11.5	2.7	1.4	2.7	0.0	00		C
1-92-05-4422	HALON Replacement					2	2.0	2.0
Legislative Compl.	4.3	1.0	4.9	0.0	0.0	00	0.0	C
1-84-05-4038	Armor Tiles							25
Oper. capability	41.0	35.5	0.0	0.0	0.0	0.0	00	C
1-92-05-4421	Engine Access Door Lift	Lift					25	0.0
Oper. capability	2.6	0.0	0.0	0.0	0.0	00	00	C
1-90-05-4300	TOW Subsystem Support Equipment	poort Equipment					25	200
Oper. capability	0.0	6.7	0.0	0.0	0.0	0.0	0	C
1-96-05-4510	TOW Mod for AO BFVS	.VS					2	2.0
Oper. capability	13.1	0.0	0.0	0.0	0.0	0.0	00	C
1-96-05-4514	Suite of Survivability Enhancemer	Enhancement S	nt Systems (No P3a Set)				2	200
Oper. capability	0.0	0.0	0.0	0.0	13.0	13.0	11.4	10.3
Not Applicable	A3 Improvements (No P3a Set)	o P3a Set)						
Oper. capability	0.0	0.0	0.0	0.0	45.8	44.5	53.7	55.4
1-96-05-4517	A2 Card Retrofit							
safety	0.0	0.8	0.2	0.0	0.0	0.0	0.0	0
							2:0	0.0



		65.7							
February 1997	4OD) (GZ2400)	65.2							
	BFVS SERIES (MOD) (GZ2400)	57.5							
	ш	9.09							
EET	P-1 ITEM NOMENCLATURE	46.6							
TIFICATION SH		61.2							
BUDGET ITEM JUSTIFICATION SHEET	/BUDGET ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	119.0							
	VITY T OF WPNS & TRKD CMB	526.9							
	APPROPRIATION / BUDGET ACTIVITY PROCUREMENT OF	Totals						7.000	

	MODIFIC	MODIFICATION INSTALLATION SUMMARY	STALL	ATION S	UMMAF	≿	Date		
		,	40					February 1997	97
			TOA, D	ollars in	(TOA, Dollars in Millions)				
System/Modification	ZG ZZ	-							
No Pas Set for modification	*	FX 1887	FY 1998	FY 1999	EY 2000	FY 2001	EY 2002	FY 2003	TOTAL
BEVS SERIES (MOD)									
G72400									
201-75									
A1-A2 Conversion	72.1	8.4	13.5	11.0	0.0	0.0	0.0	0.0	105.0
A2 ODS Mods	1.8		1.3	1.0	1.8	0.0	0.0	0	0.00
Transmission Electronic Controller (TEC)	0.0		0.0	0.0	0.0	0.0	0	0 0	9 6
Ol Backup Sights/Periscopes	1.7		0.0	0.0	0.0	00	0		200
ACU Pillow Block Mod	1.3		0.7	0.0	0.0	0.0	0		i c
Vehicle Intercom System	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.1
DECA	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
HALON Replacement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Armor Tiles	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Engine Access Door Lift	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOW Subsystem Support Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOW Mod for AO BFVS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sulte of Survivability Enhancement Systems	*		0.0	0.0	0.0	0.0	0.0	0.0	0.0
A3 Improvements	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A2 Card Retrofit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	76.9	12.2	15.5	12.1	1.8	0.0	0.0	0.0	118.4

	012000		
* * * * * * * * * * * * * * * * * * * *	1222	באות האם	

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	A1-A2 Conversion 1-84-05-4038		
MODELS OF SYSTEMS AFFECTED:	M2A1 (IFV) / M3A1 (CFV)		
DESCRIPTION / JUSTIFICATION:	DESCRIPTION / JUSTIFICATION:		

The BFVS conversion effort converts the A1 configuration to an A2 configuration.

The conversion effort includes:

1. High Survivability (HS) Kit which will enhance vehicle survivability through the application of alternate armor and selective use of crew compartment spall liners for increased protection against threat from frontal attack. The HS kit also contains other associated changes such as restowage, swim curtain, IFV firing ports, and M240 gun upright.

2. The 600HP power pack, which includes the 600 HP engine and the reliability improved 500-3 Transmission which eliminates the adverse impact of increased vehicle weight on vehicle performance and reliability, resulting from High Survivability changes.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	ACC	ACCOMPLISHED	
	HS KITS	600HP ENGINE	500-3 TRANSMISSION
Prellminary Design Review:	1086	4087	1087
Critical Design Review:	1086	1089	2088
Contractor Test and Evaluation:	3Q87	3088	2088
Development Test and Evaluation:	4087	4088	2088
Inital Operational Test and Evaluation:	3087	A N	4089
IPR Production Decision	4087	1089	NA
TDP Available:	1089	1089	2088

Cartifornia Cartifornia	TARGET IN THE PARTY OF THE PART		A	A1-A2 Conversion 1-84-05-4038	onvers	ion 1-	84-05	4038												
FY 1996	FINANCIAL PLAN: (\$ in Millions)		1 1																	
HIS 1358 1973 1.12 MIS 1358 1973 1.12 MIS 1358 1973 1.12 MIS 1358 1973 1.12 MIS 1358 1973 1.12 MIS 1358 1973 1.12 MIS 141		FY 19 and P	196 rior	FY 19	97	FY 19	98	FY 19	66	FY 200	00	FY 20	101	FY 20	20	FY 2003	_	C L	TOT	Ā
kits 1388 187.9 1.2 1368 187.9 1.2 1368 197.0 1368 197.0 1368 198.0 198.0 Crists 137 44.6 41 1.9 1368 13.5 94.7.7 137 14.1 13.1 14.1 14.1 15.1 15.1 15.1 15.1 15.1 15		Q.	\forall	ð		Q Qf	\$	φ		Off	S	Q.	49	Ofy C	8	3	ð		S S	8
Driens 1936 187.9 1.2 1988 198.2 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35	RDT&E PROCUREMENT Kit Quantity Installation Kits																			
Driders 1956 39.2	Fright Survivability Kits 600 HP Engine		45.6	14											*************				1358	189.1
pt Kils 957 72.1 98 8.4 168 13.5 94 7.7 1317 1317 3.3 1318 13.5 11.0 1358 13.5 13.5 11.0 1358	500-3 Transmission Engineering Change Orders Data Training Equipment Support Equipment Other	1358	39.0 0.9																1358	39.2
s) 957 72.1 98 8.4 168 13.5 11.0 ost 345.7 11.5 13.5 11.0	- Kits	257	72.1	88	4.8	168	13.5	94 7.	3.3			***************************************							1317	101.7
957 72.1 98 8.4 168 13.5 11.0 1358 ost 345.7 11.5 13.5 11.0 11.0 11.5 11.5 11.0 <td>FY 1999 Eqpt - Kits FY 2000 Eqpt - Kits FY 2001 Eqpt - Kits FY 2002 Eqpt - Kits FY 2003 Eqpt - Kits FY 2003 Eqpt - Kits</td> <td></td> <td>· w</td> <td></td> <td></td> <td></td> <td></td> <td></td>	FY 1999 Eqpt - Kits FY 2000 Eqpt - Kits FY 2001 Eqpt - Kits FY 2002 Eqpt - Kits FY 2003 Eqpt - Kits FY 2003 Eqpt - Kits														· w					
345.7 11.5 13.5 11.0	Total Installation Cost	957	72.1	86	8.4	168	13.5		11.0										1358	105.0
	Total Procurement Cost	.,	345.7		11.5		13.5		11.0						H					381.7



Item No. 13 Page 7 of 43	113

Exhibit P-3a Individual Modification

8 Prior 887 42 42 8 Prior 887 42 42 42 42 42 42 42 42 42 42 42 42 42	ğ ğ	42 42 44 45	F	FY 1998								Date		ľ	February 1997	97				
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8 Prior 887 42 42 FY 2000 FY 2000															_					
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FY 2000								32	6											41
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Y 2000 Y 2001 Y 2002																				
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Outputs																				
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Remarks:																				
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	INDIVIDUAL MODIFICATION	Date	Cohmon 1007
			i editaly 1937
MODIFICATION TITLE:	A2 ODS Mods 1-92-05-4404		
MODELS OF SYSTEMS AFFECTED.	A CO A CLACA CO		
	WIZAZ/WISAZ		
TOTAL MOTOR AND AND AND AND AND AND AND AND AND AND			
DESCRIPTION / JUSTIFICATION:			

Six vehicle improvements (ECP's) which will correct deficiencies identified in Operation Desert Storm. These increase vehicle lethality and survivability and situational awareness.

a. Laser Range Finder: will give the BFVS a first burst on target capability and reduce the time required to acquire and kill a target.

b. Position Navigation System: Global Positioning System (GPS) integrating hardware and a self calibrating digital compass. This will enable the Bradley commander to determine his exact location at all times and determine the heading and distance to any location.

c. Equipment Restow Improvement: Improves the method of stowing internal and external equipment.

d. Combat Identification System (CID): Provides integration hardware for the passive CID system that will provide visual and thermal signatures detectable between ground to ground vehicles and from air to ground.

e. Driver's Thermal Viewer: Increases the driver's ability to see through battlefield obscurants such as dust, fog and smoke during night and day. f. Missile Countermeasure Device: Provides additional protection against a variety of anti tank missiles.

Additionally, included in this effort are Armored Hatches to further improve vehicle survivability.

EVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	4093	4093	
Critical Design Review:	2094	2094	
Contractor Test and Evaluation:	3094	3094	
Development Test and Evaluation:	4094	1095	
Inital Operational Test and Evaluation:	1095	1095	
IPR Production Decision	2Q95	2Q95	

					QNI	INDIVIDUAL MODIFICATION	MODIF	CATION	-						Date	te		February 1997	266	
MODIFICATION TITLE (Cont):		٩	72 OD	S Mod	A2 ODS Mods 1-92-05-4404	05-440	4													
FINANCIAL PLAN: (\$ in Millions)	ΕV	FV 1996	-																	
	and	and Prior	FΥ	FY 1997	FY 1998	398	FY 1999	66	FY 2000	8	FY 2001	16	FY 2002	22	FY 2003	3	TC		TOTAL	با
	ð	8	ਰੇ	8	Q	69	Q Q	€	δę	€9	QfQ	€9	Qily	€9	Οţ	О \$	Qty	\$	Qty	ક્ક
RDT&E PROCUREMENT										Н			Т							
Kit Quantity						-										-				
Installation Kits	565	62.3		415 46.6	300	33.3	213	28.5											1493	173.6
Installation Kits Nonrecurring									****											
Equipment							~					•								
Equipment Nonrecurring		1.9	-																	1.9
Engineering Change Orders																				
Data															-					
Training Equipment													_							
Support Equipment		0.2	•													-	_			0.2
Other										_										
Interim Contractor Support												-							*****	
																				
Installation of Hardware																· · · · ·				
FY 1996 & Prior Eqpt Kits	193	1.8	210	2.3															403	4.1
FY 1997 Eqpt Kits					99	1.3													89	1.3
FY 1998 Eqpt Kits						-	53	1.0			-								53	1.0
FY 1999 Eqpt Kits									88	1.8									88	1.8
FY 2000 Eqpt kits																				
FY 2001 Eqpt kits										_	_					_	_			
FY 2002 Eqpt kits			NOTE	. Applica	ion quan	titles and	d costs re	NOTE: Application quantities and costs reflect kits applied by field retrofit only.	s applie	d by field	d retrofil	only.		Costs fo	s ops	Costs for ODS application	=			
FY 2003 Eqpt kits				during /		manufac	ture and	AO-A2 remanufacture and A1-A2 conversion are reflected on their respective P-forms.	onversi	on are r	eflected	on the	r respec	tive P-fc	ms.					
(FY(TC) Eqpt (xx kits)																				
Total Installation Cost	193	1.8	210	2.3	89	1.3	53	1.0	88	1.8						_			612	8.2
Total Procurement Cost		69.3		48.9		34.6		29.5		1.8										184.0
											;	1						,		
METHOD OF IMPLEMEN A HON: Contractor/Depovried retro.	A: Contra	ctor/Ut	SDOVII BIK	retro.	ADMINISTRATIVE LEADTIME:	SHAIL	VE LEAL	J.IME:		9	Months	Lĺ	PHODUCTION LEADTIME:	CON	EAUIII		ZL Mo	Months		
Contract Dates:		FY 1997: FY 4007:	7.	Mar 97		u	FY 1998:		Ž	Mar 98		u. Ĺ	FY 1999:		Mar 99	66				
Delivery Date:		11	. 16	ואומו		_	1 1330.		IAI	00		L	FY 1999:		Ma	Maron				

FY 1986 FY 1987 FY 1989 FY 2000 FY 2001 & Phior 28 154 154 57 712 112 12 2 4 1 2 3 4 1 3 3 4	FY 1896 FY 1987 FY 1898 FY 1989 FY 2000 FY 2001 8 Prior 28 154 154 77 Reprior 28 154 154 154 77 FY 2000 FY 2001 FY 2001 FY 2001 FY 2005 FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2001 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2001 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2001 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2001 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2001 FY 2001 FY 2005 FY 2005 FY 2001 FY 2004 FY 2005 FY 2001 FY 2005 FY 2005 FY 2001 FY 2005 FY 2005 FY 2001 FY 2005 FY 2005 FY 2001 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY 2005 FY	Installation Schedule:		2 OD(A2 ODS Mods 1-92-05-4404	s 1-9	2-05-	4404										۵	Date		Feb	February 1997	71				
R Prior 28 154	R Prior 28 154 175 12 12 2 26 71 58 58 R Proto FY200 FY200 FY200 FY200 FY200 FY200 FY200 FY200 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 </th <th></th> <th>FY 1996</th> <th></th> <th>FY</th> <th>1997</th> <th></th> <th></th> <th>FY 1</th> <th>866</th> <th></th> <th></th> <th>FY 15</th> <th>666</th> <th></th> <th></th> <th>FY 20</th> <th>00</th> <th></th> <th></th> <th>FY 2(</th> <th>101</th> <th></th> <th></th> <th></th> <th></th> <th></th>		FY 1996		FY	1997			FY 1	866			FY 15	666			FY 20	00			FY 2(101					
8 Prior 28 154 154 154 77 112 112 12 2 26 71 56 58 8 Prior 28 154 154 154 77 112 112 12 2 26 71 56 58 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4	8 PHor 28 154 154 177 112 112 2 8 PHor 28 154 154 177 112 112 2 8 PHor 28 154 154 77 112 112 2 7 112 112 2 8 PHor 28 154 154 377 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4	1	& Prior		CI.	ന	41		O	ന്ദ	41		C)	(7)	4	-	CV.	m	4	-	O	m	4				Tot
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FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2	FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2	·Y 1999												26	7	58	28										~ ~1
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				-	2		4	_	8		4	-	202		4	-	2 2		4	-	0	C.		_	2002	ď	
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Y 2002 Y 2003 Y 2000 Y 2000 Y 2000 Y 2001 Y 2001 Y 2002 Y 2003 F 2003 F 2003 F 2003 F 2003 F 2003 F 2003 F 2003 F 2003	Y 2002 Y 2002 Y 2003 Y 2000 Y 2000 Y 2001 Y 2002 Y 2003 Hemarks:	Y 2000																									
Y 2002 Y 2003 Y 2000 Y 2000 Y 2001 Y 2002 Y 2002 Y 2003 iemarks:	Y 2002 Y 2000 Y 2000 Y 2001 Y 2002 Y 2002 Y 2003 Femarks:	'Y 2001																									
Y 2003 Y 2000 Y 2001 Y 2002 Y 2003 Hemarks:	Y 2003 Y 2000 Y 2001 Y 2002 Y 2003 Iemarks:	Y 2002																									
Value Y 2000 Y 2002 Y 2003 Femarks:	Y 2000 Y 2001 Y 2002 Y 2003 Y 2003 Iemarks:	Y 2003																									
Y 2000 Y 2001 Y 2002 Y 2003 Iemarks:	Y 2000 Y 2001 Y 2002 Y 2003 Iemarks:	utputs																									
Y 2002 Y 2003 F 2003 Femarks:	Y 2002 Y 2003 Iemarks:	Y 2000																									
Y 2002 Y 2003 Iemarks:	Y 2002 Y 2003 Iemarks:	Y 2001																									
Y 2003	Y 2003 Femarks:	Y 2002																						•			
lemarks:	lemarks:	Y 2003																									
		lemarks:																									



MODIFICATION TITLE:	Transmission Electronic Controller (TEC) 1-90-05-4282 M2A2/M3A2	-4282	
	M2A2/M3A2		
MODELS OF SYSTEMS AFFECTED:			
DESCRIPTION / JUSTIFICATION:			
The Transmission Electronic C directly improves transmission hot and cold performance, and	The Transmission Electronic Controller (TEC) replaces the hydromechanical transmission control with an electromechanical control. the TEC directly improves transmission maintainability and reliability. The control features of TEC will provide improved acceleration, fuel utilization and hot and cold performance, and better low speed maneuverability.	ısmission control with an s of TEC will provide imp	electromechanical control. the T roved acceleration, fuel utilizatio
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES:	P. ANNED	ACCOMPLISHED
Preliminary Design Review:	W:	NA	
Critical Design Review:		AN	
Contractor Test and Evaluation:	uation:	NA	
Development Test and Evaluation:	valuation:	AM	
Inital Operational Test and Evaluation:	d Evaluation:	¥ Z	
IPR Production Decision		2094	2094
TDP Available:		2094	2094

															Dale		ART AIRDIGAL	/ 199/ A	
MODIFICATION TITLE (Cont):		1	Transmission		Electro	nic Cc	ntrolle	r (TEC	Electronic Controller (TEC) 1-90-05-4282)5-428	2								
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966																	
	and Prior	rior	FY 1997	397	FY 1998	98	FY 1999	66	FY 2000	-	FY 2001	FY	FY 2002	FY 2003	003	5		TOTAL	AL
	ð	49	Qt	€	Q Ş	69	ξ	\$	Oty \$	Qty	\$	Qf	€9	Oth	€9	Qty	69	Offy	€9
RDT&E PROCUREMENT Kit Quantity																			
Installation Kits Nonracurum	333	5.8	256	4.1	237	3.8	208	3.4										1034	17.1
Equipment												· · · · · · · · · · · · · · · · · · ·							
Equipment Nonrecurring Engineering Change Orders		•		-															
Data										-									
Support Equipment							***					www.							
Other Interim Contractor Support					•		***								·				
	APPI ICATION IS BILIDGETED AS DART OF THE A2 ONS DEDGEDAM			— /d u V	— F	——HE	a	— —							-				
Installation of Hardware	j		 	-	5		5						_					***************************************	
FY 1996 & Prior Eqpt Kits																			
FY 1998 Eqpt Kits																			
FY 1999 Eqpt Kits																			
FY 2000 Eqpt kits FY 2001 Equt kits																		-	
FY 2002 Eqpt kits									~~									-	
FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits) Total Installation Cost					+		+												
Total Procurement Cost		5.8		1.4		3.8	H	3.4				Ш							17.1
METHOD OF IMPLEMENTATION: Contractor/Depot/field mod	Contract	ctor/Depo	ot/field m	č	ADMINISTRATIVE LEADTIME:	TRATIV	IVE LEAD	TIME:	9	Months	દા	PRODI	JCTION	PRODUCTION LEADTIME:	ME:	8	Months		
Delivery Date:	LÜ	EV 1997.		Aug 07		Lú	FY 1996:		Ve Ser	, e		FY 1999:	55 (e c	Dec 98				

& Prior & Prior Ins	Installation Schedule:		Transmission Electronic Controller (TEC)	issior) Elec	stroni	c Con	troller	(TE(1-90-05-4282	1282						Date			February 1997	ry 1997					
8 Prior 1 2 3 4 1 3 3 4 3 3 4		FY 1996		FY	1997			F	1998			F	1999			Ĺ	/ 2000			u.	'Y 2001	_					
R Prior 76 76 77 76 27 68 68 56 58 R Prior 76 67 68 68 54 68 56 58 R PY 2000 12 61 61 61 61 61 61 61 61 61 61 61 61 61 61 61 61 62 52		& Prior		CI	က	4	-	CI		41	-	CI	m	41	-	CI		41					কা				Total
8 Prior 28 76 76 77 77 8 76 8 44 5 57 8 8 44 68 58 58 8 68 64 61 61 61 61 61 61 61 61 61 61 61 61 61	nputs																										
R Prior 76 67 68 68 64 1 27 68 68 44 24 68 58 58 58 59 59 59 59 59 52 52 52 52 52 52 52 52 52 52 52 52 52	FY 1996 & Prior	28					7																				333
8 Prior 76 67 68 69 54 24 69 59 59 59 59 59 59 59 59 59 59 59 59 59	FY 1997						7				_																256
R Prior 76 67 68 68 54 61 61 61 61 60 59 59 59 59 52 52 52 FY 2000 FY	FY 1998									Ŋ				*													237
R Prior 76 67 68 68 54 12 61 61 61 61 60 59 59 59 52 52 52 52 52 52 52 52 52 52 52 52 52	-Y 1999												24				60										208
R Prior 76 67 68 68 54 61 61 61 61 61 61 61 61 61 61 61 61 61																											
Rethor 76 67 68 68 54 12 61 61 61 61 61 61 61 61 61 61 61 61 61	Outputs																										
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FT 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-Y 1996 & Prior	76					4																				333
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 200	-Y 1997					7					_																256
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	·Y 1998										96				6												237
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	:Y 1999														2				25								208
1 2 3 4 1 2 3				EV 200	۶			FY 20	5			EV 2	SUC			F	800			ì.	2004			ú	7 2005		
Installation occurs during application of ODS mods by contractor & depot.				8							*				**	-			4		8	က	4	-	2	4	Total
	nputs																										
	·Y 2000																										
	-Y 2001																										
	'Y 2002																										
	FY 2003																										
	Outputs																										
	-Y 2000																										
	:Y 2001																										
	:Y 2002																										
	-Y 2003																										
Installation occurs during application of ODS mods by contractor & depot.	Remarks:																										
		Install	ation occ	curs du	ring a	oplicati	on of O	DS mod	ds by c	ontract	or & de	oot.															

	INDIVIDUAL MODIFICATION Date February 1997	uary 1997
MODIFICATION TITLE:	OI Backup Sights/Periscopes 1-86-05-4115	
MODELS OF SYSTEMS AFFECTED:	M2A2/M3A2	
DESCRIPTION / JUSTIFICATION:		
This materiel change will add	This materiel change will add a filter to the present configuration of the Unity Vision Block (periscopes) and the Backup Sight to provide eye	eye

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Sight t)
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3lock (r	
Vision I	
Unity	
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iguratio	
ant conf	
e prese	asers.
er to th	ar-term
dd a filt	inst nea
e will a	ew agai
chang	the cre
This materiel change will add a filter to	ction for
This	protection for the crew against near-term

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	2087	2Q87
Critical Design Review:	3087	3Q87
Contractor Test and Evaluation:	4088	4088
Development Test and Evaluation:	2088	2088
Inital Operational Test and Evaluation:	AN	NA
IPR Production Decision	4089	4089
TDP Available:	2Q90	3Q90





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	INDIVIDUAL MODIFICATION		Date February 1997
MODIFICATION TITLE:	ACU Pillow Block Mod 1-91-05-4314		
MODELS OF SYSTEMS AFFECTED:	TOW 2 SUBSYSTEM		
DESCRIPTION / JUSTIFICATION:			
This block modification combir modifications will seal against weapon system package.	This block modification combines 5 class 1 ECPs into a consolidated block ACU package. The ACU is part of the TOW missile launcher. These modifications will seal against moisture and eliminate pillow block associated damage to the ACU which can result in critical failures of the TOW weapon system package.	ackage. The ACU is part age to the ACU which ca	of the TOW missile launcher. Thes n result in critical failures of the TC
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES:		
Preliminary Design Review:	ew:	NA	ACCOMPLISHED
Critical Design Review:		AN	NA
Contractor Test and Evaluation:	luation:	AN	NA
Development Test and Evaluation:	valuation:	VA	NA
Inital Operational Test and Evaluation:	rd Evaluation:	٧	NA
IPR Production Decision		1092	1092
TDP Available:		NA	NA
	And the second s		

FY 1996 & Prior Eqpt -- Kits

FY 1997 Eqpt -- Kits FY 1998 Eqpt -- Kits FY 1999 Eqpt -- Kits FY 2000 Eqpt -- kits

Installation of Hardware

Total Procurement Cost

Delivery Date:

Total Installation Cost

(FY(TC) Eqpt (xx kits)

FY 2002 Eqpt -- kits FY 2003 Eqpt -- kits

FY 2001 Eqpt -- kits

Interim Contractor Support

FINANCIAL PLAN: (\$ in Millions)

Installation Kits Nonrecurring

Installation Kits Kit Quantity

PROCUREMENT

RDT&E

Engineering Change Orders

Training Equipment Support Equipment

Equipment Nonrecurring

Equipment

MODIFICATION TITLE (Cont):





Installation Schedule:	ule: A(ACU Pillow Block Mod 1-91-05-4314	ow B	lock N	And 1	-91-0	5-4314									õ	Date		Febru	February 1997						٩
	FY 1996		FY 1997	266			FY 1998	398			FY 1999	666			FY 2000	00			FY 2001	10						
4	& Prior	-	C4	(C)	41	\dashv	C)	(2)	41	-	⊘	_(C)	41	-	CI.	ଠା	41	-	CA.	ro)	41					Total
Inputs								;																		
FY 1996 & Prior	1874	1874 334	334	334	333	267	266	267	266																	4275
FY 1997																										
FY 1998																										
FY 1999																										
Outputs																										
FY 1996 & Prior	1874	1874 334	334	334	333	267	266	267	266																	4275
FY 1997																										
FY 1998																										
FY 1999																										
			FY 2000	0		_	FY 2001	_		_	FY 2002	C '		II.	FY 2003			u.	FY 2004			ш	FY 2005			
		-	N	က	4	-	Ø	က	4	-	C	က	4	-	0	ဗ	4	-	0	က	4	-	2	က	4	Total
Inputs																										P
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Outputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Remarks:																										

	INDIVIDUAL MODIFICATION Date	February 1997
MODIFICATION TITLE:	Vehicle Intercom System 1-90-05-4284	
MODELS OF SYSTEMS AFFECTED:	A2 ODS M2/M3	
DESCRIPTION / JUSTIFICATION:		
The VIS system is a replacem well as access to the vehicle r	The VIS system is a replacement for the AN/VIC-1 intercom system. It is a digital intercom system which provides internal communications as well as access to the vehicle radios. This is a non-developmental item to be applied to the A2 ODS vehicles.	mmunications as

	ACCOMPLISHED	
	PLANNED	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	Preliminary Design Review:	

Preliminary Design Review:	NA	ACCOMPLISHED	
Critical Design Review:	NA	NA	
Contractor Test and Evaluation:	NA	NA	
Development Test and Evaluation:	NA	NA	
Inital Operational Test and Evaluation:	2095	2095	
IPR Production Decision	3095	3095	
TDP Available:	NA	NA	

				=	DIVIDL	AL MO	INDIVIDUAL MODIFICATION	NO						1	Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		Vehicle Interco	e Inter	com S	ysten	-90-1 ר	m System 1-90-05-4284	14											
FINANCIAL PLAN: (\$ in Millions)	EV 1006	F																	
	and Prior	F	FY 1997	F	FY 1998	F	FY 1999	FY	FY 2000	FY 2001	100	FY 2002	202	FY 2003	903	-	TC	TOTAL	A.
	Oty \$	ğ	€	ਰੇ	8	ਰੇ	()	Qţ	မှ	Offy	ક્ક	Qfy	69	ð	€	ਲੇ	69	Qfy	↔
RDT&E PROCUREMENT																			
Kit Quantity														•				,	7
Installation Kits Installation Kits Nonrecurring	553 8.5	292	3.4	218	2.2	N												550	0.4.
Equipment															-				
Equipment Nonrecurring																			
Cafa																			
Training Equipment					,														
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
APPLICATION SCHEDULED AND BUDGETED AS PART OF	AND BUDGE	FED AS	PART (DDS AF	A2 ODS APPLICATION	NOL												
FY 1996 & Prior Eqpt Kits																			
FY 1997 Eqpt Kits																			
FY 1998 Eqpt Kits																			
FY 1999 Eqpt Kits													٧.						
FY 2000 Eqpt Kits																			
FY 2001 Eqpt Rits													-						
EV 2002 Eqpt Rits																			
(FY(TC) Eapt (xx kits)																			
Total Installation Cost																			
Total Procurement Cost	89	8.5	3.4	4	23	2.2													14.0
METUDO OF IMPI EMENTATION: Contractor/Denot	N. Contractor/F	fond		ADMI	MISTR	TIVE	ADMINISTRATIVE I FADTIME	ú	ď	Months		PRODI	CTION	PRODI ICTION I FADTIME	Ä	œ	Months		
Contract Dates:	FY 1997:	197:	Mar 97	76		FY 1998:	98:	i	Mar 98			FY 1999:		Ž	Mar 99				
Delivery Date:	FY 1997:	197:	Sep 97	16		FY 1998:	198:		sed as			FY 1999:		מ	seb aa				

Installation Schedule: Vehicle Intercom System 1-90-05-4284	dule:	Vehic	ie In	ercor	n Sys	stem 1	0-06-	5-428	74								Date	_		February 1997	y 1997					
	FY 1996	96		FY 1997	7			FY 1998	œ			FY 1999	6			FY 2000				FY 2001						
	& Prior	rior 1		C.J	m	41	-	OI.	(2)	4	1	c)	3			6	4		-	0	4					Toto
Inputs																										IOI
FY 1996 & Prior		28	20	70	70	7	84	84	92																	ù
FY 1997									80	84	68	89	34													000
FY 1998														68	58	28										2 6
FY 1999																1										ų.
Outputs																										
FY 1996 & Prior		28	20	20	20	7	84	84	92																	i
FY 1997										84	68	89	34													000
FY 1998														89	S,	28										202
FY 1999																3										N
			FY;	FY 2000			Ā	FY 2001			Ā	FY 2002			Ŧ	FY 2003			Ę	FY 2004			FY 2005	5		
			-	Q	က	4	-	N	က	4	-	c)	e	4	-		c:	4	-		C.	_		,	-	
Inputs												1)	•		1)	r	-		‡	Na
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Outputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Remarks:																										

	INDIVIDUAL MODIFICATION Date	February 1997
MODIFICATION TITLE:	DECA 1-93-05-4441	
MODELS OF SYSTEMS AFFECTED:	M2A2/M3A2	
DESCRIPTION / JUSTIFICATION:		
The DECA is the microprocessor based controller subsystem to execute a specific task. The DECA reliability and elimination of hull and turret gyro.	The DECA is the microprocessor based controller of the turret drive system. It transfers signals from crew and sensor inputs to the appropriate subsystem to execute a specific task. The DECA replaces the Electronic Control Assembly (ECA) and provides built in testing, improved reliability and elimination of hull and turret gyro.	its to the appropriate sting, improved

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	NA	
Critical Design Review:	W	
Contractor Test and Evaluation:	NA	
Development Test and Evaluation:	AA	
Inital Operational Test and Evaluation:	AN	
IPR Production Decision	3Q89	3Q89
TDP Available:	3Q89	3Q89

Equipment

ication

FY 1696 FY 1697 FY 1698 FY 1699 FY 2000 FY 2	Installation Schedule:		ECA 1	DECA 1-93-05-4441	5-444	_											۵	Date		Febr	February 1997					
Which is 2 3 4 1 3 3 4 1 3 3 4 3 4		-¥ 1996		FY 1	266			FY 19	98			FY 199	39			FY 20	8			FY 20	10					
Frior 26 25 30 30 84 84 57 75 75 54 2 St		& Prior		CI.	(C)	4	-	C 1	က	41					-	C)	ෆ	41	-	01	ଚା	41				Total
Frior 26 25 30 30 84 84 64 57 75 54 2 51 83 Friends	Inputs																									
FY 2000 FY 2001 FY 2001 FY 2002 FY 2005 FY 2006 FY 200	FY 1996 & Prior	26					84	84	84	22																450
FY 2000	FY 1997									27	75	75	24	8												233
Frior 26 25 30 30 84 84 67 75 75 54 2 5 51 63 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 20	FY 1998													25	2											54
9 Prior 26 25 30 30 84 84 67 75 75 75 54 2 82 2 51 53 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4	FY 1999														5	23										104
8 Prior 26 25 30 30 84 84 67 75 75 75 74 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Outputs																									
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2	FY 1996 & Prior	26				30	84	84	84	22																450
52 2 51 53 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 15	FY 1997									27	75	75	54	8												233
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 10 2	FY 1998													25	0											54
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2	FY 1999														51	53										104
FY 2000 FY 2001 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4																										
				FY 200	0		_	FY 2001			ĬĹ.	Y 2002			ш.	Y 2003			tulus	.Y 2004			L	Y 2005		
FY 2000 FY 2002 FY 2002 FY 2003 FY 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 FY 2004 FY 2005 FY 2007			-	0		4	-	7	က	4	-	0	က	4	-	67	က	4	-	N	က	4	-	8	က	Total
FY 2000 FY 2001 FY 2002 FY 2003 FY 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 200	Inputs																									
FY 2001 FY 2002 FY 2003 FY 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 200	FY 2000																									
FY 2002 FY 2003 Cutputs FY 2000 FY 2001 FY 2001 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2004 FY 2005 FY 200	FY 2001																									
FY 2003 FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 FW 2003 FW 2003 FW 2003 FW 2003	FY 2002																									
Outputs FY 2000 FY 2001 FY 2002 FY 2003 Remarks:	FY 2003																									
Outputs FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 Remarks:																										
FY 2001 FY 2002 FY 2003 FY 2003 FY 2003 FY 2003	Outputs																									
FY 2002 FY 2003 Remarks:	FY 2000																									
FY 2002 FY 2003 Remarks:	FY 2001																									
FY 2003 Remarks:	FY 2002																									
Remarks:	FY 2003																									
	Remarks:																									

	INDIVIDUAL MODIFICATION Date February 1997	
MODIFICATION TITLE:	HALON Replacement 1-92-05-4422	
MODELS OF SYSTEMS AFFECTED:	Bradley Fighting Vehicle System	
DESCRIPTION / JUSTIFICATION:		
The Halon replacement prograprogram will provide an alterna	The Halon replacement program is in response to DOD and Army policy to eliminate the unnecessary release of Halon into the atmosphere. This program will provide an alternate agent to use in the BFV engine compartment fire extinguishers.	his

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	3095	1096	
Critical Design Review:	4096	1097	
Contractor Test and Evaluation:	NA	AN.	
Development Test and Evaluation:	4Q96		
Initial Operational Test and Evaluation:	NA	NA	
IPR Production Decision	2097		
Approve ECP:	2097		

Exhibit P-3a Individua

FINANCIAL PLAN: (\$ in Millions) FY 1996 And Prior FY 1997 FY 1998 Approcure FY 1997 Approcure FY 1999 Approcure FY 1999 Approcure FY 1999 Approcure FY 1999 Approcure FY 1999 Approcure FY 1998 Approcure FY 1999		FY 2000 FY 2001	\$ Qty \$	FY 2003	Δt DT		
FY 1996 And Prior FY 1997 FY 1998 Chy \$ Cty \$ Cty \$ Aty \$ 4.9 4.3 1.0	66	2000	EY 200	FY 200			
and Prior FY 1997 FY 1998 Qty \$ Qty \$ 4.9 connecurring nge Orders 4.3 1.0	989 8	\$ 0000	EY 200	City Oth			
Contractive groups and the control of the control o	₩	69	Δłσ	Αψ	Ą		TOTAL
tonrecurring 467 scurring age Orders 4.3 1.0						€	S Ato
Support Equipment Other Interim Contractor Support Installation of Hardware FY 1996 & Prior Eqpt Kits FY 1998 Eqpt Kits FY 1999 Eqpt Kits FY 2000 Eqpt kits FY 2002 Eqpt kits FY 2003 Eqpt kits FY 2003 Eqpt kits					6257	9.	6724 75.5
Total Installation Cost							
Total Procurement Cost 4.9 1.0 4.9						70.6	80.9
METHOD OF IMPLEMENTATION: Contractor teams ADMINISTRATIVE LEADTIME: FY 1997: Aug 97 FY 1998: Delivery Date:	IVE LEADTIME: FY 1998: FY 1998:	6 Months Mar 98 N/A	PRODUCTI(FY 1999: FY 1999:	PRODUCTION LEADTIME: FY 1999: FY 1999:	5	Months	



cation

	INDIVIDUAL MODIFICATION Date	February 1997
MODIFICATION TITLE:	Armor Tiles 1-84-05-4038	
MODELS OF SYSTEMS AFFECTED:	M2A2(IFV)/M3A2(CFV)	
DESCRIPTION / JUSTIFICATION:		

Armor tiles are one of the High Survivability improvements to the BFVS. The tiles provide increased armor protection for shaped charge threats, including hand held heat and other classes of warheads as specified in the BFVS material need area. There are 5 configurations of tiles covering

the vehicle front, sides and turret.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
Preliminary Design Review:	PLANNED	ACCOMPLISHED
Critical Design Review:	3090	3090
Contractor Test and Evaluation:	NA	
Development Test and Evaluation:	NA	
Inital Operational Test and Evaluation:	NA	
IPR Production Decision	2092	2093
TDP Available:	NA	





FY 1986 FY 1597 FY 1598 FY 1599 FY 2000 FY 2	Installation Schedule: Armor Tiles 1-84-05-4038	4-05-4038							Date	February 1997	y 1997			
8 Prior 1 2 3 4 1 2 </th <th>FY 1996 FY 1997</th> <th>_</th> <th>FY 1998</th> <th></th> <th>FY 1999</th> <th></th> <th></th> <th>FY 2000</th> <th></th> <th>FY 2001</th> <th></th> <th></th> <th></th> <th></th>	FY 1996 FY 1997	_	FY 1998		FY 1999			FY 2000		FY 2001				
8 Prior FY 2000 FY 2001 FY 2003 FY 2005 FY 2006 FY 200	1.21	41				41	-1							Total
8 Prior FY 2000 FY 2001 FY 2002 FY 2004 FY 2005 FY 2005 FY 2006 FY 2005 FY 2006 FY 2005 FY 2006 FY 2005 FY 2006 FY 2005 FY 2006 FY 200	Inputs													
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	INDIVIDUAL MODIFICATION		Date February 1997
MODIFICATION TITLE:	Engine Access Door Lift 1-92-05-4421		
MODELS OF SYSTEMS AFFECTED:	M2A2(IFV)/M3A2(CFV)		
DESCRIPTION / JUSTIFICATION: This is the last of a group of four	ESCRIPTION / JUSTIFICATION: This is the last of a group of four modifications to correct four deficiencies identified during Desert Storm. The Engine Access Door Lift	ed during Desert Storm.	The Engine Access Door Lift
Mechanism is a redesigned pun	Mechanism is a redesigned pump to eliminate failures encountered when raising the armored engine access door.	the armored engine acce	ss door.
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	LOPMENT MILESTONES:		
Preliminary Design Review:	•	PLANNED 1Q92	ACCOMPLISHED 1092
Critical Design Review:		2092	2092
Contractor Test and Evaluation:	llon:	3092	3Q92
Development Test and Evaluation:	uation:	3Q92	3092
Inital Operational Test and Evaluation:	evaluation:	3092	3Q92
IPR Production Decision		3094	3Q94
TDP Available:		3Q94	3Q94

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	FY 1998:	98:				FY 1999:						

Installation Schedule:		gine ,	Acces	s Doo	r Lift	Engine Access Door Lift 1-92-05-4421	5-442	_								Date			February 1997	1997					Г
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	INDIVIDUAL MODIFICATION Date	February 1997	
MODIFICATION TITLE:	TOW Subsystem Support Equipment 1-90-05-4300		
MODELS OF SYSTEMS AFFECTED:	TOW 2 SUBSYSTEM SUPPORT EQUIPMENT		
DESCRIPTION / JUSTIFICATION:			

This modification combines 20 class 1 ECPs into a consolidated Block modification which will expand the capabilities and life cycle of the TOW
support equipment and bring all assets to a uniform configuration. Benefits include reduced diagnostic spares, improved reliability, and improved
user awareness of handling/lifting restrictions of MIL-STD-1472C.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		THE PROPERTY OF THE PROPERTY O
Preliminary Design Review:	NA	ACCOMPLISHED
Critical Design Review:	NA	NA
Contractor Test and Evaluation:	NA	NA
Development Test and Evaluation:	NA	NA
Inital Operational Test and Evaluation:	NA	¥Z
IPR Production Decision	1092	1092
TDP Available:	NA	NA



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	INDIVIDUAL MODIFICATION	Date	February 1997	Γ
MODIFICATION TITLE:	TOW Mod for AO BFVS 1-96-05-4510			
MODELS OF SYSTEMS AFFECTED:	M2AO(IFV)/M3AO(CFV)			

This modification is for procurement and application of modification kits to the Bradley AO TOW Subsystem (TSS) and associated TOW subsystem Test Sets (TSS-TS) to provide the capability to fire and guide the TOW 2 family of missiles. This mod increases system lethality by incorporating optimized flight algorithms for the TOW 2A and TOW 2b missiles when fired from Bradley AO vehicles.

DESCRIPTION / JUSTIFICATION:

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	NA	NA
Critical Design Review:	NA	NA
Contractor Test and Evaluation:	NA	NA
Development Test and Evaluation:	NA	NA
Inital Operational Test and Evaluation:	NA	NA
IPR Production Decision	NA	NA
TDP Available:	4096	4Q96

Ication

Exhibit P-3a Individua

				-	INDIVIDUAL MODIFICATION	AL MOD	IFICATI	NO						Date		Feb	February 1997	
MODIFICATION TITLE (Cont):		10	TOW Mod for		AO BFVS 1-96-05-4510	1-96-0	5-4510											
FINANCIAL PLAN: (\$ in Millions)	FY 1996	Γ																
	and Prior		FY 1997		199	FΥ	FY 1999	FY 2000	8	FY 2001	01	FY 2002	2	FY 2003		TC	OT	TOTAL
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Total Procurement Cost	Ť	13.1	H						H	H	H							13.1
METHOD OF IMPLEMENTATION: Contractor Contract Dates: Delivery Date:	I: Contractor FY 1	ictor FY 1997: FY 1997:		ADM	ADMINISTRATIVE LEADTIME: FY 1998: FY 1998:	TIVE LEA! FY 1998: FY 1998:	ADTIME 8: 8:	úi	5 N	Months	- L II II	PRODUCTION LEADTIME: FY 1999: FY 1999:	TION LE	EADTIME	51	Months	60	
Delivery Date:	F	FY 1997:				FY 1998:	69				uL.	FY 1999:						





	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	A2 Card Retrofit 1-96-05-4517		
MODELS OF SYSTEMS AFFECTED:	TOW 2 Subsystem (T2SS) Missile Guidance System (MGS)		

The relay/squib circuit card assembly (CCA) controls the power up/power down functions of the MGS and provides indications of missile launch, flight status and modes of operation. It also generates the PREFIRE and FIRE squib control signals required to launch the missile and the WIRECUT squib control signal used to cut the missile quidance wires. This mod will add a semiconductor device diode across resistor "R39" on the A2 CCA to increase the speed of discharge for capacitor C21 and to prevent an inadvertent missile launch.

DESCRIPTION / JUSTIFICATION:

PLANNED PLANNED PLANNED N/A Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Inital Operational Test and Evaluation: IPR Production Decision TDP Available: Oct-96 Oct-96	DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
N/A N/A N/A Oct-96	Examples	PLANNED	ACCOMPLISHED	
N/A N/A Oct-96	Preliminary Design Review:	N/A	N/A	
N/A N/A Oct-96	Critical Design Review:	N/A	N/A	
N/A N/A Oct-96	Contractor Test and Evaluation:	N/A	N/A	
N/A Oct-96 Oct-96	Development Test and Evaluation:	N/A	N/A	
Oct-96 Oct-96	Inital Operational Test and Evaluation:	N/A	N/A	
Oct-96	IPR Production Decision	Oct-96	Oct-96	
	TDP Available:	96-120	96-toO	





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	Remarks:																										
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						DATE		
	BUC	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	IEET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	GET ACTIVITY			P-1 ITEM NOMENCLATURE	LATURE			
PROCUREMENT O	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked (BT VEHS /Tracked C	Combat Vehicles		HOWITZER, I	MED SP FT 155	HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)) (GA0400)
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (in millions)	282.0	105.9	18.7	11.5	4.4	0.0	0.0	0.0
				The state of the s		The second secon		

DESCRIPTION: Funds the procurement of approved modifications to the 155MM M109 Self-Propelled Howitzer (See detailed description/justification on following exhibit P-3A).

COOPERATIVE AGREEMENTS:

system developer, BMY, a Division of Harsco Corporation, was awarded a full scale engineeering development contract in October 1985, and a low Production Division) won a competitive multiyear procurement contract for full scale production of remaining Paladin requirements during FY 1993-Paladin. The U.S./Israeli Joint Development Agreement has expired effective with the Paladin Milestone III Full Scale Production Decision. The The Government of the United States of America, as represented by the Department of the Army (DA), and the Government of Israel (GOI), as contract, into prototype M109s. DA and MOD supplied their own M109s for prototype work. GOI funding for its share of the program was \$30.7 Propelled Howitzer in November 1985. This program incorporated already developed items, together with items which were developed under million over Fiscal Years (FY) 1986-1990. The U.S. Howitzer is currently in the full scale production phase and has been named the M109A6 represented by the Ministry of Defense (MOD), agreed to cooperate on a joint development project to improve the M109 Series 155mm Selfrate production contract in September 1990. In April 1993, FMC Corporation (now known as United Defense, Limited Partnership, Paladin

THE MOIT ATIENT HEADING	-	DATE
SOSIETICATION SI		rebluary 1997
PROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	HOWITZER,	HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)

OSIP No. Classification	Description All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
1-81-05-1002 unclassified	Howitzer Improvement Program 1,207.4 105.9	nent Program 105.9	12.3	11.5	4.4	0.0	0.0	0.0
1-96-05-1003 unclassified	Chlorofluorocarbon (CFC) Elimination 0.0 0.0	(CFC) Elimination 0.0	6.4	0.0	0.0	0.0	0.0	0.0
Totals	1,207.4	105.9	18.7	5.	4.4	0.0	0.0	0.0

(TOA, E	(TOA, Dollars in Millions)	SUMMA s)	¥				Date	February 1997	1997
System/Modification	FY 1996 and Prior	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
No P3a Set for modification HOWITZER, MED SP FT 155MM M109A6 (MOD) GA0400									2
Howltzer Improvement Program	53.2	11.4	0.0					0.0	64.6
Chlorofluorocarbon (CFC) Elimination	0.0			0.0	0.0	0.0	0.0		
Totals	53.2	11.4	0.0	0.0	0.0	0.0	0.0	0.0	64.6

	INDIVIDUAL MODIFICATION Date	te	February 1997
MODIFICATION TITLE:	Howitzer Improvement Program 1-81-05-1002		
MODELS OF SYSTEMS AFFECTED:	Howitzer, Med Sp Ft 155mm M109 Ser (Mod) (MYP).		
DESCRIPTION / JUSTIFICATION:			

The M109A6 Paladin, approved for full scale production, has been designed to upgrade the M109A2/A3 Howitzer's responsiveness, effectiveness, survivability; and Reliability, Availability, and integration and assembly, and acceptance testing. The acquisition strategy for FY89/90-FY92 called for sole source contracts. A FY93-FY96 competitive multiyear production contract was awarded in April 1993. The fiscal program identified herein reflects the economies and efficiencles of a competitive multiyear contract strategy. An FY97 follow-on sole source single year Statement (MENS), approved by the Secretary of Defense in December 1980. The production phase of the program involves a combined effort between Letterkenny Army Depot and the overhauled/modified chassis with the new M284 Cannon and M182 Gun Mount manufactured by Watervilet and Rock Island Arsenals, respectively, are shipped to the contractor for final contractor. M109A2/A3 Howitzers from CONUS and OCONUS field units are being shipped to Letterkenny Army Depot. Letterkenny removes traverse mechanism, disassembles the howitzer, reconditions turnet components to be reset in the new turnet, and overhauls/ modifies the chassis to the Paladin configuration. The reconditioned turnet components, and the Maintainability-Durability (RAM-D). This meets the user's urgent need for a product improved system that satisfies the deficiencies cited in these areas by the Mission Element Need contract for an additional 37 M109A6 Paladin Vehicles is planned for award to UDLP, the current full scale production producer.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Pre-ASARC review was chaired by the Assistant Secretary of the Army for Research, Development and Acquisition, and the M109A6 Paladin was approved for Type Classification-Standard and The M109A6 was approved for entry into full scale development in November 1984. At that time, DA decided to modify M109A2/A3 Howitzers to a HIP configuration. It was decided to merge approved for Type Classification-Low Rate Production (TC-LRP) and designated the M109A6 Howitzer following a Millestone III-A ASARC on 7 February 1990. In March 1993 a Millestone III full rate production and deployment. This Milestone III approval is documented in Aquisition Decision Memorandum dated 9 April 1993. The Paladin production program is within schedule the Howitzer Extended Life Program (HELP) into the HIP where kits from both programs would be applied to the M109A2/A3 Howitzer. The improved 155mm Self-Propelled Howitzer was and, as of 1 February 1997, has successfully fielded 359 M109A6 Howltzers and all associated items of equipment.

	PLANNED	ACTUAL	
Critical Design Review		2QFY86	
Complete Prototype Qualification Testing (Vehicles 1 & 2)		4QFY88	
Complete Technical Testing (TT) (Critical Subtests)		1QFY90	
Milestone III-A (Type Classified-Low Rate Production) (TC-LRP)		2QFY90	
First M109A6 Delivery		3QFY92	
Follow-on Test & Evaluation (FOTE)		1QFY93	
Milestone III Decision (Full Scale Production) (TC-FSP)		3QFY93	
First Unit Equipped (FUE)		3QFY93	
Depot Support Capability		1QFY95	
Organic Maintenance Capability		4QFY95	

	-				ב	INDIVIDUAL INDDIFICATION	1		_					2	Dag.	_	COLUMN SOL	100
MODIFICATION TITLE (Cont):		How	itzer II	mprove	ement	Howitzer Improvement Program 1-81-05-1002	m 1-8	1-05-1	002									
FINANCIAL PLAN: (\$ in Millions)	ì	4000 A																
•	anc	and Prior	FΥ1	FY 1997	FY 1998	398	FY 1999	66	FY 2000	-	FY 2001	FY 2002	000	FY 2003		TC		TOTAI
	ð	ક્ક	ð	€	δ	s	Qţ	69	Qty	0	Offy \$	ð	69	Off	+	Oty \$	\$	8
PROCUREMENT		149.4																149.4
Kit Quantity	877		37															914
Equipment		698.6		49.2		5.0		0.8					*		***			753 6
Equipment Nonrecurring		235.3		5.2														240.5
Engineering Change Orders		162.2		20.1				3.3		0.4								186.0
Data		11.4		2.0														13.4
Training Equipment		14.1																14.1
Vehicular Intercom System		9.2		0.5						_								7.6
Other		4.4		0.8														5.5
Project Management Admin		9.5		4.7				3.0										16.9
Fielding		9.6		12.0		7.3		4.4		4.0	·							37.5
Installation of Hardware FY 1996 & Prior Kits	716	200	Ţ.	0			···········											
FY 1997 Egpt Kits	2		3	1 0									_		_		x 0	w .
FY 1998 Eqpt Kits			5	i														37 2.2
FY 1999 Eqpt kits								-n										
FY 2000 Eqpt kits			-															
FY 2001 Eqpt kits											· ·							
FY 2002 Eqpt kits														-				
FY 2003 Eqpt kits		-																*********
(FY(TC) Eqpt (xx kits)					-			_										
Total Installation Cost	716	53.2	198	11.4											-	-	ō	914 64 6
Total Procurement Cost		1,207.4		105.9		12.3		11.5		4.4					_			1,3
METHOD OF IMPLEMENTATION: Letterkenny Army Depot and System Contractor Contract Dates:	Letterk	irkenny Army FY 1997:	y Depot al	and Sysi	em Con	ntractor FY 1998:			<u>}</u>	EV 1990:								
Delivery Date:	Ĺ		Pac 4000	,		1000				0000								



FPT 1986	& Prior	1996					>													in financial					
Prior 555 64 64 54 64 56 54 64 56 54 64 56 54 64 54 56 54 64 54 54 54 54 54 54 54 54 54 54 54 54 54	& Prior			FY 15	197			FY 196	8		ш	Y 1999			FY;	2000			FY 20	101					
FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 I 2 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3	& Prior	Prior	₩	O.	ෆ)	41	₩									ഭ	41	-	CN!	(2)	41				ō
Prior 555 54 54 54 54 52 18 17 18 17 18 17 18 17 18 17 18 17 18 17 18 12 18 17 18 12 18 17 18 12 18 17 18 12 18 18 18 18 18 18	& Prior																								
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FY2002 FY2004 FY2005 FY2007 FY2007	۲ 1997								18	17															
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Frior 417 49 54 54 54 54 54 33 7 18 12 FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 1 2 3 4 1	FY 1999																			_					
FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 I 2 3 4 1 2	Total																								0,
FY2002 FY2004 FY2005 FY2007 FY2007 FY2006 FY2007 FY	Outputs																								
FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 10 10 10 10 10 10 10 10 10 10 10 10 10	FY 1996 & Prior	417	49	54			54				m														ω
FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	FY 1997									7			•												
FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 1998																								
FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 3 4 1 3 3 4 3 4	FY 1999																								
FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 1 2 3 4 1 2	ital																								O)
4 6 6 7 1 4 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			-	:Y2002			ш.	Y2003			FY2	004			FY200	55			FY2006			Ŧ	7002		
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	Inputs																								
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2005 2005 :marks:	FY 2001																								
2005 :marks:	FY2004																								
smarks:	FY2005																								
	Remarks:																								

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Chlorofluorocarbon (CFC) Elimination 1-96-05-1003		
MODELS OF SYSTEMS AFFECTED:	M109A6 Paladin Howitzer.		
DESCRIPTION / JUSTIFICATION:			
Heterences: DOD Directive 6050.0; DA P The previous references mandate the repl (MCS), with a non-chlorofluorocarbon (CF	References: DOD Directive 6050.0; DA Policy Letter 200.90-1; AMC Regulation 70-68; Montreal Protocol of 1986. The previous references mandate the replacement of R-12 Freon, used in the current M109A6 Paladin's Microclimatic Cooling System (MCS), with a non-chlorofluorocarbon (CFC) substitute. This schedule is based on the premise that a freon replacement will be identifed and languary 1997.	-68; Montreal Protocol of 1986. nt M109A6 Paladin's Microclimatic Coc the premise that a freon replacement w	oling System vill be identifed
DEVELOPMENT STATUS / MAJOR DEVELOPMENT	EVELOPMENT MILESTONES:		
Preliminary Design Review:		PLANNED ACCOMPLISHED 3QFY97	۵
Critical Design Review		1QFY98	
Joint Government Contr	Joint Government Contractor Test and Evaluation	2QFY98	
IPR Production Decision		2QFY98	
TDP Available		2QFY98	

				DIVIDNI	INDIVIDUAL MODIFICATION	DIFICATI	NO						Date	Ē	February 1997	1997	
MODIFICATION TITLE (Cont):		Chlorofluorocar	Iorocar	bon (CFC) Elimination 1-96-05-1003	C) Elim	ination	1-96-0	5-100	8								
FINANCIAL PLAN: (\$ in Millions)	FY 1996	_															
	d Pri	FY 1997	-	199	FY	FY 1999	FY 2000	000	FY 2001	-	FY 2002	FY 2003	503	TC		TOTAL	AL
RDT&E	Qfy *	Ş Ş	69	Oty \$	ξ	4	ğ	69	χίσ	S	\$ AD	ξ	€	ð	69	Ş)	₩
Retrofit Qty				120				•						794		914	
Testing					0.5										40.6		46.5

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				·								-				-	
														,			
Installation of Hardware																	
FY 1996 &Prior EqptKits			•														
FY 1997 EqptKits																	
FY 1998 EqptKits																	
EV 2000 EqptKits														300	0.8	300	0.8
FY 2001 EaptKits							****							314	0 6	314	0.0 0.0
FY 2002 EqptKits				-))	
FY 2003 EqptKits															-		
TC EqptKits													-				
Total Installation Cost														914	2.4	914	2.4
Total Procurement Cost				9	6.4										43.0		49.4
METHOD OF IMPLEMENTATION: Enter Method	: Enter Method		A	ADMINISTRATIVE LEADTIME:	ATIVE LE	ADTIME		8	Months	P.	PRODUCTION LEADTIME:	N LEADTI	ME	2	Months		
Contract Dates:	FY 1997:	7:			FY 199	B: Conf	FY 1998: Contract Mod -May 1998	I-May 1	966	Ŧ	FY 1999:						
Delivery Date:	FY 1997:	7:			FY 199	.8:		Oct	Oct 1998	ΕY	FY 1999:						





						DATE			
	BUE	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997		
APPROPRIATION / BUDGET ACTIVITY	YTIVI			P-1 ITEM NOMENCLATURE	,,,				
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	OF WPNS & TRKD C Vehicles	D CMBT VEHS /Tr. es	acked Combat			FAASV PIP TO FLEET (GA8010)	-LEET (GA8010)		
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	
QUANTITY	0	0	0	0	0	0	0	0	
COST (in millions)	6.4	13.8	1.9	0.4	0.1	0.0	0.0	0.0	

DESCRIPTION: Funds the procurement of approved modifications to the M992 Field Artillery Support Vehicle (See detailed Description/Justification on the following exhibit P-3A).

DATE February 1997	FAASV PIP TO FLEET (GA8010)
BUDGET ITEM JUSTIFICATION SHEET	APPROPRIATION / BUDGET ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS / Tracked Combat Vehicles

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	FAASV MATERIEL CHANGE (A2 Conversion) 1-93-05-4457		
MODELS OF SYSTEMS AFFECTED:	FAASV M992A2		
DESCRIPTION / JUSTIFICATION:			
The FAASV materiel change encompasses the	encompasses the previously approved EAASV HELP (Howitzer Extended Life Program) and Sumits of Sumits Material	Drodram) and C	Lois of Marilian Marian

(i.e spares, repair parts, special tools, training) and the FAASV cold starting and RAM features will be comparable. The modifications to the rear ASV HELF (HOWILZEI EXTENDED LITE Program) and Survivability Materiel FAASV crew to operate in the same environment as the M109A6 Paladin. This means the operation and maintenance features will be common modifications to provide interoperability with the M109A6 Paladin Howitzer. The enhancements provided by the materiel change will permit the Changes. The materiel change incorporates M109 Family of Vehicles improvements into the FAASV in order to maintain a common chasis. These Improvements include the Low Heat Rejection/Cold Start Engine, improved XTG 411-4 Transmission, Reliability, and Maintainability (RAM) improvements to the cooling, electrical, and suspension systems, relocated heater and hydraulic reservoir, stronger fuel cell, and door convevor and propellant racks will improve M109A6 supportability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
Examples	PLANNED	ACCOMPLISHED	
Preliminary Design Review:		1QFY91	
Critical Design Review:		4QFY91	
Contractor Test and Evaluation:		2QFY93	
IPR Production Decision		3QFY93	
TDP Available:		3QFY93	
M992A2 First Delivery		3QFY94	
M992A First Unit Equipped		1QFY95	

Exhibit P-3a Individue

					N	IVIDUA	INDIVIDUAL MODIFICATION	CATIO	z						≏	Date	ш.	February 1997	y 1997	
MODIFICATION TITLE (Cont):		Ę	FAASV MATE	MATE	RIEL	CHAN	RIEL CHANGE (A2 Conversion) 1-93-05-4457	A2 Cor	wersic	Jn) 1-{	33-05-	4457								
FINANCIAL PLAN: (\$ in Millions)	FY 1996	96																		
	and Prior	rior	FY 1997	266	FY 1998	866	FY 1999		FY 2000	00	FY 2001	01	FY 2002	02	FY 2003	33	TC		TOTAL	AL
	δ	49	ð	69	ð	49	ð	69	È	69	ਣੇ	69	ð	69	È	€9	à	49	ð	69
RDT&E PROCUREMENT												-						-		
Kit Quantity	664															,			664	
Installation Kits		45.4																	,	42.4
Engineering Change Orders		10.2		0.1														1,5		11.8
Project Management Admin.		1.0		0.4														0.3		1.7
Testing Cooper		0.1		Č																0.0
Venicular intercont system		0		- u		č		Č		-								Ç		. u
Fleiding		o. O		0.5		- -		5		- - -								<u>.</u>		0.0
													,,, <u>,</u> ,,,,				,			
Installation of Hardware	462	12.4	62	o o													103	ν. C	664	03.0
FY 1997 Eqpt Kits	}									···									3	
FY 1998 Eqpt Kits																				
FY 2000 Eapt Kits																				
FY 2001 Eqpt kits																				
FY 2002 Eqpt kits																				
FY 2003 Eqpt kits (FY(TC) Eqpt (xx kits)																				
Total Installation Cost	462	15.4	79	2.6						-							123	5.0	664	23.0
Total Procurement Cost		72.6		12.8		0.1		0.1		0.1								8.1		93.9
METHOD OF IMPLEMENTATION: Letterkenny Army Depot &	4: Letterke	nnv Ar	mv Dep	ot &	ADMIN	STRAT	ADMINISTRATIVE LEADTIME:	DTIME		4	Months		PRODUCTION LEADTIME:	I NOIL:	EADTIN	ij	0	Months		
Contract Dates:		FY 1997:	7: 7:	Jan 97			FY 1998:					- 0	FY 1999:							
Delivery Date:		661		2000			0001						1999.			l		l		

PAASV IVIALEHIEL CHANGE (AZ Conversion) 1-93-05-4457	ile: F/	MSV	MATE	HE	· CH	NGE	(A2	Conv	ersior	1-9	3-05-4	1457					Date		Fel	February 1997	1997					
	FY 1996		FY 1997	266			Ŧ	FY 1998			FY 1999	666			FY 2000	000			Ţ	FY 2001						
	& Prior	-1	CI	က	41	-	⊘i	നു	41		a	(C)	4	-	N	0	4	-	C	e	4					ŀ
Inputs													1	Ī	ı	i	1	1		k	1					INIA
FY 1996 & Prior	356	32	32	32	40	38	=																			
FY 1997																										541
FY 1998																										
FY 1999																										
Total																										
Outputs																										041
FY 1996 & Prior	321	40	20	24	8	57	38	1																		
FY 1997																										140
FY 1998																										
FY 1999																										
Total																										1
			FY 2000	_			FY 2001	-			FY 2002	O.		u.	FY 2003	en			FY 2004	04			EV 2005	200		
		-	2	က	4	-	2	က	4	-	CI.	က	4	-	8	က	4	•	60	6	4	_			c	1 Total
Inputs																	•	•							,	
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Outputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Remarks:																										

	INDIVIDUAL MODIFICATION	Date February 1997
MODIFICATION TITLE:	FAASV HALON REPLACEMENT 1-94-05-4477	
MODELS OF SYSTEMS AFFECTED:	FAASV M992A2.	
DESCRIPTION / JUSTIFICATION:		
References: DOD Directive 60 The previous references mand	References: DOD Directive 6050.0; DA Policy Letter 200.90-1; AMC Regulation 70-68; Montreal Protocol of 1986. The previous references mandate the replacement of Halon charged fire suppression systems to prevent ozone depletion. This schedule is	8; Montreal Protocol of 1986. systems to prevent ozone depletion. This schedule is
based on the premise that a replacemen replaced with an alternate agent system.	eplacement cnemical will be identified no later than 1QF ant system.	based on the premise that a replacement cnemical will be identified no later than 1QFY 97. The Halon charged fire suppression system will be replaced with an alternate agent system.
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
Examples Preliminary Design Review:	6	PLANNED ACCOMPLISHED 3QFY97
Critical Design Review:	4QF	4QFY97
Joint Government Confr	Joint Government Contractor Test and Evaluation:	2QFY98
IPR Production Decision		2QFY98
TDP Available:	2QF	2QFY98

			NDN	IDUAL N	INDIVIDUAL MODIFICATION	NO				ם	Date	Febru	February 1997	
MODIFICATION TITLE (Cont):	F	FAASV HALON		ACEN	IENT 1-9	REPLACEMENT 1-94-05-4477	7							
FINANCIAL PLAN: (\$ in Millions)	FY 1996													
	d Pri	199	FY 1998	-	/ 199	FY 2000	-	FY 2001	FY 2002	FY 2003	3	TC	TOTAL	A
10 H	Ofy &	Offy \$	ਰੇ	\$	Oty \$	Ş Ş	\$ Of	₩	Oty \$	Q.	\$ Qty	\$	Qly	€9
PROCUREMENT Kit Quantity Installation Kits Engineering Support Data	.0	00 C	36	6.0 6.0 6.0 6.0							æ	6.1 0.2 0.1	885	6.4
Other -	}			0.00								0.1		1.4 0.3
Installation of Hardware FY 1996 & Prior Eqpt Kits FY 1997 Eqpt Kits FY 1998 Eqpt Kits					36 0.3								98	Ö
FY 1999 Eqpt Kits FY 2000 Eqpt Kits FY 2001 Eqpt Kits FY 2002 Eqpt Kits FY 2003 Eqpt Kits (FY(TC) Eqpt (xx Kits)											430	3.6	419	3.8
Total Installation Cost					36 0.3						849	9 6.8	885	7.1
Total Procurement Cost	0.3	1.0		1.8	0.3						H			16.7
METHOD OF IMPLEMENTATION: Contractor Contract Dates: Delivery Date: FY 1	I: Contractor FY 1997; FY 1997;		NDMINIST	RATIVE LEAU FY 1998: FY 1998:	ADMINISTRATIVE LEADTIME: FY 1998: FY 1998:	5 FEB 98 AUG 98	Months 98 98		PRODUCTION LEADTIME: FY 1999: FY 1999:	V LEADTIME	φ	Months		



Installation Schedule:		JASV	FAASV HALON REPLACEMENT 1-94-05-4477	NRE	PLAC	EME	+ +	94-05-	4477							Date		Feb	February 1997	1997				
	FY 1996		FY 1997	197			FY 19	98			FY 1999	•		Ĺ	FY 2000			F	FY 2001					
	& Prior	-	N	ଚା	41	-	(A)		41		C)	3 4			ଠା	41	-	C)	(1)	41				Total
Inputs																								
FY 1996 & Prior																								
FY 1997																								
FY 1998						×			36															36
FY 1999																								
Outputs																								
FY 1996 & Prior																								
FY 1997																								
FY 1998										36														36
FY 1999																								
			FY 2000	-		II.	FY 2001			F	FY 2002			FY 2003	6003			FY 2004	04		FY 2005	05		
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Inputs																								
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Outputs																								
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FY 2002																								
FY 2003																								
Remarks:																								

						DATE			
	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	IEET			February 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	E				
PROCUREME	NT OF WPNS & TRKD CME	PROCUREMENT OF WPNS & THKD CMBT VEHS /Tracked Combat Vehicles	Vehicles		IMPRO	IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)	HICLE (M88 MOD) (3A0570)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	
QUANTITY	24	24	12	17	25	31	36	45	
COST (in millions)	54.4	55.7	28.6	40.2	59.7	74.0	87.1	109.8	

against small arms fire, artillery fragments and anti-personnel mines. The vehicle mounts a .50 caliber machine gun for self-protection. The M88A2 and a spade. The boom has a 35 ton lift capacity and the main winch has a constant pull capacity of 70 tons. The hull is armored for protection Description: The M88A2 Hercules is an armored, full-tracked, diesel-powered, recovery vehicle configured with an A-frame boom, two winches, HERCULES is capable of performing recovery, evacuation, and limited repair of the main battle tank.

ack of recovery capability has necessitated the development of an improved recovery vehicle to provide a towing capability for vehicles weighing up to JUSTIFICATION: The present 56 ton M88A1 is deficient in its ability to safely perform battlefield recovery of vehicles weighing 60 tons or more. The M88A1 cannot safely recover the Army's current main battle tank, the Abrams Tank, without using a second vehicle as a brake vehicle. The present M88 recovery vehicle chassis, upgrade the propulsion system to 1050 HP, add armor protection, improve winching to 70 tons, improve hoisting to 70 tons. The M88A2 HERCULES will provide the Army with this capability. The M88A2 HERCULES program strategy is to modify the existing 35 tons, and add a hydraulic assisted braking system.

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Cost Elements cb TotalCost \$000 1. Vehicle Manufacturing - Contractor B 4584 2. Vehicle Manufacturing - GFE 198 3. Contract Engineering 4. Engineering Change Orders 5. Project Management Admin - Core B 89 6. Project Management Admin - OGA 114 7. Transportation 4	1 - 0 0 0 1 0 0 - 4	FY 96 Qty	\$000 \$000 45432 2040 2016 460 961 1099 48 632 506	94 Cach &	#5000 #5000	\$000 \$000 22761 1038 2092 228 991 839 628	Cuty Each	\$OQO 1897 87	\$000 \$000 33616 1496 2239 308 1010 859 859	City City City 17 17 17	UnitCost \$000
Cost Elements CD Total Wehlcle Manufacturing - Contractor Vehlcle Manufacturing - GFE Contract Engineering Engineering Change Orders Project Management Admin - Core Project Management Admin - OGA Transportation	1 - 0 0 0 1 0 0 + 5	\$000 \$000 1910 83	\$000 \$000 45432 2040 2016 460 961 1099 48 48 506	T T	22 33	\$000 22761 1038 2092 228 991 839 24 628	Oty Each 12 12	\$000 \$000 1897 87	\$00 \$0	Gty Each 17	UnitCost \$000 1977
Vehicle Manufacturing - Contractor Vehicle Manufacturing - GFE Contract Engineering Engineering Change Orders Project Management Admin - Core Project Management Admin - OGA Transportation	80 Eac Fac Fac Fac Fac Fac Fac Fac Fac Fac F	\$000 15	132 140 1460 160 199 199 193 193	4 4	1893	\$000 22761 1038 2092 228 991 24 628	12 12	\$000 1897 87	0	Each 17 17	\$000
Vehicle Manufacturing - Contractor Vehicle Manufacturing - GFE Contract Engineering Engineering Change Orders Project Management Admin - Core Project Management Admin - OGA Transportation		5	45432 2040 2016 460 961 1099 48 632 506	24 45	85 85	22761 1038 2092 228 991 839 24	d d	1897 87		17	1977
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Engineering Change Orders Project Management Admin - Core Project Management Admin - OGA Transportation	113 897 1149 48 871		460 1099 48 632 506			228 991 24 628			308 1010 859 33 668		
Project Management Admin - Core Project Management Admin - OGA Transportation	897 1149 48 871		961 1099 48 632 506			9991 839 628			1010 859 33 668		
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	BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANN	ORY AND PLANNING EXHIBIT (P-5A)					DATE Fe	February 1997	266
B. APPHOPHIATION / BUDGET ACTIVITY						C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	#			
	Procurement of	Procurement of Weapons and Tracked Combat Vehicles	les			Ē	proved Reco	Improved Recovery Vehicle (MBB Mod) (GA0570)	38 Mod) (GA0570)	
LINE ITEM / FISCAL YEAR	EAR	CONTRACTOR AND LOCATION	METHOD AND TABE	CONTRACTED BY	AWARD DATE	DATE OF FIRST	ΔTV	150	SPECS		IF YES W/A
1. Vehicle Manufacturing - Contractor	or		AND LIFE			DELIVERY	Each	\$000	MOM	REQ'D	
FY 96		UDLP (1)	SS-FFP	TACOM	Anr-06	111-07	70	0	L		
FY 97		UDLP	SS-FFP	TACOM	Mar-97	Pul-ab	4 6	1810	VES.		
FY 98		UDLP	SS-FFP	TACOM	Mar-98	06-111	1 2	1807	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-	
FY 99		UDLP	SS-FFP	TACOM	Mar-99	Jul-00	16	1977	YES		
2. Vehicle Manufacturing - GFE											
90											
FY95		Various	SS-FFP	Various				83	YES		
EV98		various	SS-FFP	Various				82	YES		
200		Various	SS-FFP	Various				87	YES		
200		Various	SS-FFP	Various				88	YES	·····	
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REMARKS: (1) United Defe	(1) United Defense Limited Partnership	ship								1	
FY97 (Vehicle I	Manufacturing, Contr	FY97 (Vehicle Manufacturing, Contractor): Unit cost reduction from FY96 to FY97 due to manufacturing efficiencies as a result of learning after FY95 production break.	to FY97 due	to manufácturing efficiencies	as a result c	f learning a	fter FY95 p	roduction breal	ند		
FY99 (Vehicle I	Vanufacturing, Conti	FY99 (Vehicle Manufacturing, Contractor): Increased unit cost in FY99 due to production break in FY98	e to productiv	on break in FY98		•					

Item No. 17 age 3 of 7



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Exhibit P-5A P

							P-1 ITEM NOMENCLATURE	OMENC	ATURE				1		100	3	١,		DATE		1		,	ļ		
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CODE "B" ITEM	DESCRIPTION	DATE	Fehrian, 1997	REPORT CONTROL SYMBOL DD-COMP(AR)1092
APPHOPRIATION	АСПИТУ	P-1 ITEM NOMENCLATURE	CLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS	ACTIVITY 1, TRKD COMBAT VEH		IMPROVED RE	IMPROVED RECOVERY VEH (M88 MOD) (GA0570)
1. CURRENT DEVELOPMENT AND TEST STATUS				
				SCHEDULE DATE
		CURRENT	LAST RPTD	REASON FOR DELAY
		3	(2)	(3)
Pre-Production Qual Test (PPQT)	ACTUAL	Aug-93	Aug-93	N/A
Limited User Test (ILUT)	ACTUAL	Jul-93	Jul-93	N/A
Production Qualification Test (PQT)	ACTUAL	Feb-96	Feb-96	NA AN
Initial Operation Test & Evaluation (IOT&E)	ACTUAL	Jul-96	96-unf	Test Hardware Delivery Delayed
2. ESTIMATED DATE OF APPROVAL FOR SERVICE USE	TC Standard 2097			

S. EXTENT OF IMPROVEMENT OVER ITEM(S) OF EQUIPMENT TO BE REPLACED

M88A2 Improved Recovery Vehicle replaces the M88A1 Recovery Vehicle

- 1. Increased safe tow weight from 56 to 70 tons. 2. Improved propulsion system from 750 HP to 1050 HP Engine. 3. Improved transmission to handle the IRV's increase towing capability.
 - 4. Added hydraulic assisted braking system. 5. Improved armor protection. 6. Main winch has 70 ton constant pull capacity. 7. Added 3 ton auxillary winch. 8. Upgraded holst to 35 tons.

5. DEVELOPMENT CONTRACT INFORMATION

CONTRACTOR NAME	PLANT LOCATION	COMPONENT	THROUGH 1996	1997	1998	1999	BEYOND BYS
(i)	(2)	(3)	(4)	(2)	(9)	(2)	(8)
United Defense, LP	York, PA	PROTOTYPE	41.5	3.0			
Government Support			9.3				
TOTAL DOTOF CLINISIAN							
IOIAL HOISE FUNDING			50.8	3.0			

6. REMARKS

Results of PQT and IOTE indicate that the vehicle is performing favorably. The Reliability, Availability, and Maintainability (RAM) objective for the system is 210 Mean Miles Batween Operational Mission Failures (MMBOMF); the system demonstrated 256 MMBOMF in testing. The system Mean Miles Between Hardware Failure goal is 375 miles; the system demonstrated 392 miles in testing.

^{*} Reference entries on attachment to P-19 if additional space is required to adequately explain delay from previous date.



						DATE		
	BUD	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	IEET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	יועודץ			P-1 ITEM NOMENCLATURE	ш			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked C	BT VEHS /Tracked C	Combat Vehicles			BREACHER SYSTEM (MOD) (GZ3200)	EM (MOD) (GZ3200)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	11	11	16
COST (in millions)	0.0	0.0	0.0	10.4	11.0	83.4	86.3	125.9

minefields and removing complex natural and man-made obstacles at the forward edge of the battlefield. The Grizzly will be capable of moving with, mine clearing blade with automatic depth control, a power driven excavating arm to reduce complex obstacles, and an armored commander's control station. The Grizzly will provide the Combat Engineer with significantly improved mission effectiveness and crew/vehicle survivability while clearing DESCRIPTION: The Grizzly (Breacher) will be developed around the M-1 Abrams tank chassis and will integrate a versatile/survivable full-width and be as survivable as, the force it is supporting. It will provide the maneuver force with the freedom required to successfully execute assigned ground combat mission requirements.

agility of the current maneuver force. The Grizzly possesses a complex obstacle reducing capability, with mobility protection, and agility comparable complex linear obstacle breach. All existing counterobstacle and countermine systems are single purpose only, and lack the mobility, protection and JUSTIFICATION: During Operation Desert Storm, it became evident that the Army presently has no one vehicle capable of performing an in-stride, to the M-1 Abrams Tank.

•		
	2. Vehicle Manufacturing - Contractor 2. Vehicle Manufacturing - ANAD 3. Vehicle Manufacturing - GFE 4. System Technical Support 5. Engineering Change Orders 6. Project Management Admin - Core	 Project Management Admin - OGA Sustaining Tooling - Contractor Sustaining Tooling - Anniston

BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANNIN	ORY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	26
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	IRE			
PROCUREMENT OF WPI	PROCUREMENT OF WPNS & TRKD CMBT VEHS / Tracked Combat Vehicles	oat Vehicles				BREAC	BREACHER SYSTEM (MOD) (GZ3200)	DD) (GZ350	6	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST \$000	SPECS AVAIL NOW	SPEC IF REV REQ'D	IF YES W/A
10. Facilitization - FY99	UDLP: York, PA*		ТАСОМ	96-un	&	Ž	A Z		2	
REMARKS: *United Defense Limited Partnership.										

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CODE "B" ITEM DE	DESCRIPTION	БАТЕ	Fehniary 1997	REPORT CONTROL SYMBOL DD-COMP(AR)1092
APPROPRIATION	ACTIVITY	P-1 ITEM NOMENCLATURE	CLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS	Tracked Combat Vehicles		BREACHEF	BREACHER SYSTEM (MOD) (GZ3200)
1. CURRENT DEVELOPMENT AND TEST STATUS				
				SCHEDULE DATE
		CURRENT	LAST RPTD	REASON FOR DELAY.
		(1)	(2)	(6)
a. DEV TEST & EVAL (DT&E)	PLAN / ACTUAL	1096	1096	
b. INITIAL OPER TEST & EVAL (IOT&E)	PLAN / ACTUAL	2096	2096	
c. OPER TEST & EVAL (OT&E)	PLAN / ACTUAL	4002	2002	Delayed MS II /extended EMD design to mitigate risk.
d. AVAIL DATE OF TECH DATA PKG (TDP)		3099	2099	Extended EMD design time to mitigate technical risk.
OR PERFORMANCE SPECIFICATIONS				
2. ESTIMATED DATE OF APPROVAL FOR SERVICE USE	TCLP-DEC 99, TC STANDARD-111N 02			

EQUIPMENT ITEM(S) TO BE REPLACED

NA All existing counterobstacle and countermine systems are single purpose only.

4. EXTENT OF IMPROVEMENT OVER ITEM(S) OF EQUIPMENT TO BE REPLACED

The Grizzly (Breacher) supports the Army requirement for a mine clearing capability comparable in mobility, protection, and agility to the maneuver force. The Grizzly integrates countermine and counterobstacle capabilities into a single, survivable system capable of breaching complex obstacles in-stride and creating a cleared lane for other combat vehicles to follow.

S. DEFECTMENT CONTINUE INFORMATION	CHMALION						
CONTRACTOR NAME	PLANT LOCATION	COMPONENT	THROUGH 1996	1997	1998	1999	BEYOND BYS
(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)
UDLP •	York, PA	Advance Development	61.4				
. ADLP	York, PA	Eng & Mfg Dev Prototype	5.8	29.5	38.8	39.1	92.5
Government Support		Advanced Development	11.1				
Government Support		Eng & Mfg Development	0.7	4.6	4.9	12.3	24.7
TOTAL RDT&E FUNDING			79.0	34.1	43.7	51.4	117.9

«. neмanks *United Defense Limited Partnership

* Reference entries on attachment to P-19 if additional space is required to adequately explain delay from previous date.



						DATE		-
	BND	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	VIITY			P-1 ITEM NOMENCLATURE	111			
PROCUREMEN	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	T VEHS /Tracked Combat	Vehicles			HEAVY ASSAULT BRIDGE	HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	2	10	7	6	13	15	17	17
COST (in millions)	14.6	51.3	42.2	52.0	71.2	90.1	111.5	122.5

Abrams Tank chassis. The bridge is capable of spanning gaps up to 24 meters on both prepared and unprepared abutments and can be placed on a The Wolverine is operated by a crew of two soldiers and will be employed by Combat Engineer units in both offensive and defensive combined arms bearing surface over its entire length. It is launched under armor within five minutes and can be retrieved, from either end, in less than ten minutes. DESCRIPTION: The Wolverine (Heavy Assault Bridge) is a 26 meter (79 feet) Military Load Class 70 bridge transported on a modified M1A2 SEP operations. Its mission is to provide gap crossing capability for heavy maneuver forces. It is planned to support the Abrams Tank System and the Bradley Fighting Vehicle and is compatible with these systems in mobility and survivability.

logistics compatibility. The Wolverine enhances the Combined Arms Team's ability to move where it wants, multiplying its combat capabilities. First JUSTIFICATION: During Operation Desert Storm, it became evident that the current Army bridging system was deficient in gap spanning capability worldwide gap crossing capabilities, increased load capacity to support Military Load Class 70 vehicles and improved mobility, survivability, and and required increased load carrying capability. The Wolverine will replace the Armored Vehicle Launched Bridge (AVLB) providing increased Unit Equipped will be in FY00 at a quantity of 12 vehicles.

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WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR	T ACTIVITY INT OF WI	TITLE/NO NS & TRKD CI	A APPN/BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 /	B. WEAPON HEAVY AS	ASSAULT BRIE	B. WEAPON HEAVY ASSAULT BRIDGE (HAB) SYS (MOD)	(MOD)	C. MANUFACTURER NAME GEN DYNAMICS LAND S	C. MANUFACTURER NAME GEN DYNAMICS LAND SYS	D. DATE Febn	TE February 1997
WTCV	₽		FY 96	Compar Venicles		FY 97	(628250)	250)	FV 98			EV 00	
Cost Elements	СО	TotalCost	Offy	UnitCost	TotalCost	र्डे	UnitCost	TotalCost	οţ	UnitCost	TotalCost	<u>\$</u>	UnifCost
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2. Vehicle Manufacturing - ANAD		400	N	200	2240	10	224	1600	7	229	2100	6	233
3. Vehicle Manufacturing - GFE		2100	9	350	2028	9	338	2230	7	319	2910	6	323
4. Contract Engineering					4292			7550			0669		
5. Engineering Change Orders			•		1020			720			940		
6. Project Mgmt Admin - Core		747			710			730			750		
7. Project Mgmt Admin - OGA		964			1390			1350			1350	- 11 44.	
8. Total Package Fielding					190			250			190		
9. Initial Production Facilities		V 1000			860								
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TOTAL PROGRAM COST		14611			51322	•		42205			51950		
Weapon System Unit Cost		7305			5132			6059			5772		
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Tracked Compat Vehicles	BUDGET PF	BUDGET PROCUREMENT HISTORY AND) PLANNIN	TORY AND PLANNING EXHIBIT (P-5A)					DATE Fe	February 1997	266
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Contractor	PROCUREMENT OF W.	PNS & TRKD CMBT VEHS / 1 / Tracked Co.	nbat Vehicles			Ħ	SAVY ASSAUL	T BRIDGE (HAB) S	YS (MOD	(GZ3250	
Caneral Dynamics Land Sys	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	ΩTY Each		SPECS AVAIL NOW		IF YES W//
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SS-CPFF TACOM	FY 96 FY 96 FY 96	General Dynamics Land Sys * Anniston Amy Depot Government Furnish Equipment	SS-CPFF	TACOM	Aug-96		0 0 0	5200 200 350		YES	Apr-98
General Dynamics Land Sys* PSF P TACOM Jun-97 Oct-00 6 3859 NO YES Amiston Amy Depot Government Funish Equipment Government Funish Equipment Government Funish Equipment Government Funish Equipment Government Funish Equipment Fu	FY 97 FY 97	General Dynamics Land Sys * Anniston Army Depot	SS-CPFF OPTION	TACOM	Dec-96		4 4	3859	Q.	YES	Apr-98
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General Dynamics Land Sys* SS-FFP TACOM Nov-98 Sep-00 9 4080 NO YES Anniston Army Depot Government Furnish Equipment Fur	FY 98 FY 98 FY 98	General Dynamics Land Sys * Anniston Army Depot Government Furnish Equipment	SS-FFP BOA	TACOM	Dec-97	Feb-00	7 7 7	3968 229 319	ON ON	YES	Apr-98
	FY 99 FY 99 FY 99	General Dynamics Land Sys * Anniston Army Depot Government Furnish Equipment	SS-FFP BOA	ТАСОМ	Nov-98		o o o	4080 233 323		YES	Apr-98
		stems - Sterling Heights, MI									



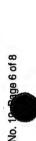
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Exhibit P-21 Produc

Exhibit P-21 Production Schedule

						P-1 ITEM NOMENCLATURE	OMENC	LATURE									Ī	DATE							
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Exhibit P-21 Product

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GENERAL DYNAMICS LAND SYSTEMS NIA* NIA* NIA* LIMA, OH *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles.		_	Min	2	4		REACHED D+	Numb		a	Γ	1	Prio	000	+	After	Ö	-	ffer 1	Oct.	¥	9 1 0	.							
LIMA, OH 'HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles.	GENERAL DYNAMIC	t	N/A*	Ž	. *	N/A			REG	RDER				П	Н								П							
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CODE "B" ITEM	DESCRIPTION	DATE February 1997	y 1997	REPORT CONTROL SYMBOL DD-COMP(AR)1092
APPROPRIATION	ACTIVITY	P-1 ITEM NOMENCLATURE	SLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS	Tracked Combat Vehicles	_	HEAVY ASSAULT	HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)
1. CURRENT DEVELOPMENT AND TEST STATUS				
				SCHEDULE DATE
		CURRENT	LAST RPTD	REASON FOR DELAY*
		(1)	(2)	(3)
a. DEV TEST & EVAL (DT&E)	PLAN / ACTUAL	DEC91/DEC 92	Dec-92	DELAY IN FUNDING
b. PRE-PROD QUAL TEST (PPQT)	PLAN / ACTUAL	JUN 96/AUG 96	Aug-96	EXTENDED CONTRACTOR TEST
6. LOGISTICS DEMONSTRATION	PLAN / ACTUAL	30N 96/30N 96	96-unr	
d. PHODUCTION VEHIFICATION TEST (PVT)	PLAN / ACTUAL	Apr-99	Aug-98	MIGRATION TO MIAZ SEP CONFIGURATION
8. INITIAL OPER TEST & EVAL (IOT&E)	PLAN / ACTUAL	Aug-99	Jan-99	MIGRATION TO MIA2 SEP CONFIGURATION
2. ESTIMATED DATE OF APPROVAL FOR SERVICE USE	TCLP - 2Q97, TC STANDARD - 4QFY00			

Armored Vehicle Launched Bridge (AVLB).

4. EXTENT OF IMPROVEMENT OVER ITEM(S) OF EQUIPMENT TO BE REPLACED

Military Load Class Improved from MLC 60 to MLC 70. Gap spanning capability improved from 17.4m(57') to 24m(79'). Provide mobility and protection comparable to the M1 Abrams Tanks.

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5. DEVELOPMENT CONTRACT INFORMATION	DRMATION						
CONTRACTOR NAME	PLANT LOCATION	COMPONENT	THROUGH 1996	1997	1998	1999	BEYOND BYS
(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)
Southwest Mobile Systems	St. Louis, MO	Eng & Mfg Dev Prototype	5.8				
Other Various Contracts	Various	Eng & Mig Dev Prototype	0.9				
Gen Dynamics Land Systems	Sterling Height, MI	Eng & Mfg Dev Prototype	36.9	12.6	4.7	4.1	0.2
Government Support		Eng & Mfg Dev	10.1		7.3	6.1	
TOTAL RDT&E FUNDING			53.7	12.6	12.0	10.2	0.2

6. REMARKS

age 8 of 8 Item No. 1

Reference entries on attachment to P-19 if additional space is required to adequately explain delay from previous date.

	BUB	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET		DATE	February 1997	
APPROPRIATION / BUDGET ACTIVITY	WITY			P-1 ITEM NOMENCLATURE	ш			
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat	IT VEHS /Tracked Combat	t Vehicles			M1 ABRAMS TAN	M1 ABRAMS TANK (MOD) (GA0700)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	50.1	63.2	29.8	30.1	23.9	68.8	107.1	129.8

Air System (PJAS); Vehicle Intercommunications System (VIS): External Auxiliary Power Unit (EAPU) and the Mounted Water Ration Heater have been so combined during the life of this program. Finally, there is the Presidentially directed Halon Replacement Program (Ozone The funds programmed in this budget line will provide for the procurement and application of modification kits for the Embedded Battle Command (EBC). Tank operational improvements include the Precision Lightweight GPS Receiver (PLGR); Pulse - Jet Loader's Hatch Ballistic Rims, Turret Cable Ballistic Protection and Driver's / Loader's Hatch Latch); Live Fire Category B (Ammo Door Latch Mechanism, Smoke Generator Fuel Line and Improved Gunner's Station); Battlefield Override (BF/OR); Driver's Viewer Quick concurrent application. Including the Live Fire Mods listed above which will be combined as Block G; more than 60 modifications These P-Forms reflect the alignment of some Mods into Blocks with the expectation that reduced costs will result from Enhancement Initiative (AEI). Tank survivability and safety improvements include Live Fire Category A (Manual Blaster, Driver's / Release (DVQR); System Package (SEP) / 2nd Generation Forward Looking Infra - Red (Gen II FLIR): Driver's Hatch Interlock and Abrams series tank to improve lethality, survivability, safety and operations. Tank lethality will be improved by the Armament Depleting Chemical Replacement). DESCRIPTION: (MWRH).

	DATE	
BUDGET ITEM JUSTIFICATION SHEET	TEET	February 1997
APPROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles		M1 ABRAMS TANK (MOD) (GA0700)

OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
1-92-05-4411	Halon Replacement							
Environmental	7.4	1.5	4.1	6.8	7.3	7.2	7.5	9.9
TBD1	Drivers Hatch Interlock	ock						
Safety	0.0	16.0	9.9	6.0	0.0	0.0	0.0	0.0
1-92-05-4412	Vehicle Intercommunications System (VIS)	nications System	(VIS)					
Legislative Compl	26.6	6.6	0.9	5.4	9.0	0.0	0.0	0.0
1-89-05-4226	Armament Enhancement Initiativ	ment Initiative (AEI)	(1)					
Operational	60.1	0.4	0.0	0.0	0:0	0.0	0.0	0.0
1-92-05-4417	Precision Lightweight GPS Receiver (PLGR)	nt GPS Receiver (PLGR)					
Manprint	6.7	1.2	1.6	1.6	1.6	0.4	0.0	0.0
1-89-05-4230	Live Fire Category A (LFCA)	(LFCA)						
Deficiency Correct	14.4	5.8	3.7	3.7	4.0	3.9	4.1	1.8
1-89-05-4229	Battlefield Override (BF/OR)	(BF/OR)						
Operational	8.9	4.2	2.6	2.5	1.8	0.8	0.8	0.4
1-94-05-4481	Live Fire Category B (LFCB)	3 (LFCB)						
Deficiency Correct	2.4	1.7	0.8	0.8	0.8	0.8	0.8	9.0
1-92-05-4427	Driver's Viewer Quick Release (DVQR)	k Release (DVQF	(1)					
Safety	0.3	0.2	0.3	0.3	0.2	0.0	0.0	0.0
1-92-05-4475	Pulse Jet Air System (PJAS)				The state of the s			
Operational	18.2	9.5	1.8	3.0	3.6	6.3	6.9	7.0
1-92-05-4426	Mounted Water Ration Heater (MWRH)	on Heater (MWRI	(F					
Manprint	1.9	0.2	0.2	0.0	0.0	0.0	0.0	0.0
N/A	Prior Year MOD Kit Applications	Applications					111111111111	
Operational	65.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
1-96-05-4504	2nd Gen Forward Looking Infra-Red (2GFLIR)	oking Infra-Red (2	GFLIR)					
Operational	0.0	0.0	0.0	0.0	1.8	28.7	50.1	64.7
1-96-05-4505	System Enhancement Package (SEP)	nt Package (SEP)						
Operational	0.0	0.0	0.0	0.0	1.2	19.7	35.8	47.6
1-96-05-4516	Embedded Battle Command	ommand						
Operational	0.0	0.0	0.0	0.0	1.0	1.0	1.1	1.1





		0.0	0.0	129.8							
February 1997	(GA0700)	0.0	0.0	107.1							
Fe	M1 ABRAMS TANK (MOD) (GA0700)	0.0	0.0	68.8			and the control of th				
		0.0	0.0	23.9				Andread Andrea			
	P-1 ITEM NOMENCLATURE	0.0	0.0	30.1							
TION SHEET	P-1 ITE	2.1	pgrade 0.0	29.8							
BUDGET ITEM JUSTIFICATION SHEET	Tracked Combat Vehicles	ver Unit (EAPU) 11.0	ver Unit (EAPU) U 2.5	63.2					CONTRACT TO THE PROPERTY OF TH		
BUDGET	/ BÜDGET ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	External Auxiliary Power Unit (EAPU) 0.0 11.0	External Auxiliary Power Unit (EAPU) Upgrade 0.0 2.5 0.	211.9			The state of the s			-	
	APPROPRIATION / BUDGET ACTIVITY PROCUREMENT OF	1-85-05-4057 Operational	TBD2 Operational	Totals							

	V	ODIFIC,	ATION I	MODIFICATION INSTALLATION SUMMAFIDER	ATION S	SUMMA	Date		
								February 1997	97
		_	(IOA, L	(TOA, Dollars in Millions)	Millions)				
System/Modification	DV EV 1006	EV 1007	EV 4000	27 1000	2000	7000	77.000	200	
No P3a Set for modification	*	1001	0001	-	בן כחחח	בו לחחו	L1 2002	F.Y 2003	IOIAL
M1 ABRAMS TANK (MOD)									
GA0700									
Halon Replacement	0.0	0.0	0.0	2.7	2.9	2.9	3.0	30	14.5
Drivers Hatch Interlock	0.0				0.0	0.0		0.0	12.6
Vehicle Intercommunications System (VIS)					9.0	0.0	0.0	0.0	3.7
Armament Enhancement Initiative (AEI)	15.3				0.0	0.0	0.0	0.0	15.7
Precision Lightweight GPS Receiver (PLGR)	1.7		0.4		0.4	0.4	0.0	0.0	3,3
Live Fire Category A (LFCA)	5.5	4.6	2.5	2.5	2.7	2.6	2.7	1.8	24.9
Battleffeld Override (BF/OR)	1.0	3.3	1.7	1.6	1.2	0.3	0.4	0.4	9.9
Live Fire Category B (LFCB)	1.6	1.5	9.0	9.0	0.7	0.7	0.7	9.0	7.0
Driver's Viewer Quick Release (DVQR)	0.1	0.1	0.2	0.2	0.5	0.0	0.0	0.0	0.8
Pulse Jet Air System (PJAS)	0.0	2.3	0.8	0.2	9.0	9.0	1.	5	6.8
Mounted Water Ration Heater (MWRH)	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.4
Prior Year MOD Kit Applications	65.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	67.4
2nd Gen Forward Looking Infra-Red (2GFLIR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
System Enhancement Package (SEP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Embedded Battle Command	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
External Auxiliary Power Unit (EAPU)	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	2.1
External Auxiliary Power Unit (EAPU) Upgrade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	91.3	15.6	15.7	14.8	9.3	7.5	7.9	7.0	169.1
							_		

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Halon Replacement 1-92-05-4411		
MODELS OF SYSTEMS AFFECTED:	M1 = 0, IPM1 = 818, M1A1 = 4351 and M1A2 = 1079	TOTAL RQMT = 6248	

involves the substitution of an, as yet, undetermined chemical for the halon currently used. This requirement was mandated by the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals [ODC's] including survivability concerns but engine compartment halon must be deleted]. See 1992 DOD directive 6050.9 which establishes policy of ODC's and DA letter 200 / 9 which implements that policy. The halon replacement modification is the implementation of a the halon 1301 used in the Abrams Tank engine compartment [halon 1301 remains authorized for the crew compartment due to This modification changes the engine compartment fire supression system in all Abrams tank variants. The retrofit Presidential directive.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	1093	1093
Critical Design Review:	1094	30,94
Contractor Test and Evaluation:	2096	2096
Development Test and Evaluation:	3036	4096
Inital Operational Test and Evaluation:	2097	
IPR Production Decision	3097	
TDP Available:	4Q97	

Installation Kits Kit Quantity

HDT&E

Equipment



Delivery Date:



FY 1996 FY 1997 & Prior 1 2 3 4 Inputs FY 1996 & Prior FY 1998 FY 1999	ú									2	Dare		100	Leolualy 1837					
& Prior 1 2 3	-	FY 1998			FY 1999	66			FY 2000	8			FY 2001	-					
1996 & Prior 1997 1998 1999	1 2	(C)	41	- 	QI	(2)	41	 i	CVI	(C)	स	-	C)		4	21			Total
1996 & Prior 1997 1998																			
1998 1999																			
1998																			
1999			300	300	300	180													1080
9						120	300	300	300	90									1080
Sinding																			
FY 1996 & Prior																			
FY 1997																			
FY 1998				270	270	270	270												1080
FY 1999								270	270	270	270								1080
FY 2000	FY 2001	001		Ĺ	FY 2002			iτ	FY 2003			IT.	FY 2004			FY 2005	005		
1 2 3 4	-	2 3	4	-	8	က	4	-	8	က	4	-	2	က	4	_	8	ဗ	4 Total
Inputs																			
FY 2000 260 300	300 220	0																	1080
FY 2001	80	0 300	300	300	100														1080
FY 2002					200	300	300	280											1080
FY 2003								20	300	300	228								848
Outputs																			
FY 2000	270 270	0 270	270																1080
FY 2001				270	270	270	270												1080
FY 2002								270	270	270	270								1080
FY 2003						١						270	270	270	38				848

extending his head outside the hatch while the turret was being rotated. The DHI will assure that similar accidents will not occur in The Driver's Hatch Interlock (DHI) is a SAFETY Modification which provides an electronic interface between the Driver's Hatch and In the recent past there have been several accidents in the field where the driver has been injured or killed by inadvertently Its purpose is to proclude Turret rotation while the Driver's Hatch is open. the Turret Drive (Rotation) controls.

the future. Without this funding, the potential exists for additional driver accidents or fatalities.

THE WAY TO THE TAKE OF THE PARTY OF THE PART		
DEVELOPMENT STATUS / MAJOH DEVELOPMENT MILESTONES:		
Examples	PLANNED	ACCOMPLISHED
Preliminary Design Review:	2Q96	2096
Critical Design Review:	3096	3Q96
Contractor Test and Evaluation:	N/A	N/A
Development Test and Evaluation:	4096	4096
Inital Operational Test and Evaluation:	N/A	N/A
IPR Production Decision	4Q96	4096
TDP Available:	1097	10.97

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Exhibit P-3a Individua

					QNI	VIDUAL	INDIVIDUAL MODIFICATION	ICATIO	z						۵	Date		February 1997	ry 1997	
MODIFICATION TITLE (Cont):			Drivers Hatch	Hatch	Interlock	支	TBD1													
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966																		
	and Prior	Prior	FY 1997	266	FY 1998	398	FY 1999	66	FY 2000	00	FY 2001	10	FY 2002	72	FY 2003	03	75		TOTAL	AL
	ð	49	ਰੇ	69	ਣੇ	69	ð	69	δ	69	ð	69	È	69	ξ	69	ਣੇ	69	Qţ	69
RDT&E PROCUREMENT Kit Quantity			4758														1247		6005	
Installation Kits Installation Kits Nonrecurring																				
Equipment Nonrecturing				16.0														5.1		21.1
Engineering Change Orders										-										
Data Training Equipment																				
Support Equipment																				
Other Integration Culphort								144.17												
												•								
Installation of Hardware							· · · · · · · · · · · · · · · · · · ·													
FY 1996 & Prior Eqpt Kits																				
FY 1997 Eqpt Kits 4758					2600	9.9	2158	0.9											4758	12.6
FY 1999 Eapt Kits															-					
FY 2000 Eqpt Kits																				
FY 2001 Eqpt Kits												•								
FY 2002 Eqpt Kits					•							-								
FY 2003 Eqpt Kits																				
(FY(TC) Eqpt 1247															-/		1247	4.1	1247	4.1
Total Installation Cost					2600	9.9	2158	6.0									1247	4.1	6005	16.7
Total Procurement Cost				16.0		9.9		0.9										9.2		37.8
METHOD OF IMPLEMENTATION: Enter Method Contr Inst.	4: Enter N	fethod	Contr		ADMINIS	STRATE	ADMINISTRATIVE LEADTIME:	TIME:		2	Months	ш	PRODUCTION LEADTIME:	TION	EADTIN	Æ	9	Months		
Contract Dates:		FY 1997:		FEB 9	97		FY 1998:					ш и	FY 1999:							
Delivery Date:		281 12		1			1 1330.					-	FT 1999:							





	INDIVIDUAL MODIFICATION	Date	February 1997	
MODIFICATION TITLE:	Vehicle Intercommunications System (VIS) 1-92-05-4412	2		
MODELS OF SYSTEMS AFFECTED:	M1 = 0; $IPM1 = 0$; $M1A1 = 4351$; and $M1A2 = 181$	TOTAL ROMT = 4532		

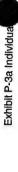
communications. It replaces the AN / VIC-1 which is technologically obsolete, difficult to maintain and susceptible to electronic countermeasures. VIS is a State-of-the-Art replacement which has none of these drawbacks. This is a congressionally mandated program. Note that the milestones below are for USA CECOM, the "A" proponent for the VIS program. Current funding will cover retrofit of M1A2's produced prior to production cut-in and all M1A1's. The Vehicle Intercommunications System [VIS] is an intercom for intercrew communications and a radio for tank to tank direct

USER PRIORITY: 13

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
Preliminary Design Review:	PLANNED N/A	ACCOMPLISHED N/A	
Critical Design Review:	N/A	N/A	
Contractor Test and Evaluation:	N/A	N/A	
Development Test and Evaluation:	4092	2Q92	
inital Operational Test and Evaluation:	3094	4Q94	
IPR Production Decision	4092	4092	
TDP Available:	N/A	N/A	

														l					
MODIFICATION TITLE (Cont):		>	ehicle	Interco	nmmc	nicatio	Vehicle Intercommunications System (VIS) 1-92-05-4412	tem (\	/IS) 1	-92-05	-4412								
FINANCIAL PLAN: (\$ in Millions)																			
	FY. and	FY 1996 and Prior	FY 1997	266	FY 1998	866	FY 1999	66	FY 2000	00	FY 2001	10	FV 2002		EV 2003	-	C	Ė	TOTAL
	ð	69	Q.	69	Ą	69	Oţ.	69	OF V	69	S	69	P P	\dagger	₩ AC	ð	9	2	4
RDT&E PROCUREMENT															-	-	•	Î	•
Kit Quantity	2568		655		5.5		654					•						ļ	
Installation Kits							5											4532	
Installation Kits Nonrecurring												-							
Equipment		22.9		5.7		5.4		8.4											Č
Equipment Nonrecurring																			30.0
Engineering Change Orders		0.2				-													Č
Testing		0.2				- N UV													4 6
Training Equipment													·						0.0
Support Equipment							•												
Other [in - House Support]		1.7		0.1															+
Interim Contractor Support		0.5									-			_					- C
										-									3
Installation of Hardware																			
FY 1996 & Prior Eqpt - 2568	1400	<u>:</u>	792	0.8	376	0.3												2568	0
FY 1997 Eqpt Kits 655					404	6.0	251	0.2				-		·				655	0.5
							529	0.4	126	0.1					_			655	0.5
FY 1999 Eqpt Kits 654			_						654	0.5		_						654	0.5
FT ZOUU EQPI KIIS																			
EV 2002 Egyt kits		•																	
EV 2003 Egyt :- kits							 ,						-						
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost	1400	17	792	0.8	780	9.0	780	9.0	780	9.0		+	+		-			4532	27
Total Procurement Cost		26.6	-	9.9		0.9		5.4		90		\vdash	_	-	-			1005	3 2
														-					40.2
METHOD OF IMPLEMENTATION: Depot Field Team	Depot	Field Tea		-	DMINIS	TRATIV	ADMINISTRATIVE LEADTIME:	TIME:			Months	A.	PRODUCTION LEADTIME:	ON LE	ADTIME:	4	Months		
Contract Dates:	ш.	FY 1997:		SEP 97		í i	FY 1998:		: S	_		F	FY 1999:			66			
Jellyely Date:	_	FY 1997:		AN 98		Ĺ	FY 1998:		NAN	66 Z		2	EV 1000.		IANI	0			





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8 Prior 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	Installation Schedule:		Vehicle Intercommunications System (VIS) 1-92-05-4412	Interc	omm	unica	tions	Syste	<u>چ</u>	S) 1-	92-05	-4412						Date		Fe	February 1997	197				
8 From 1860 200 200 200 108		FY 1996		FY 1	266			FY	1998			FY	6661			FΥ	3000			FY 2	100					
8Prior 1880 200 200 108 37 200 200 163 182 200 200 72 182 200 200 163 184 195 195 195 195 195 195 195 195 195 195		& Prior		C)	ଚା	41	H	8	က	41	Н	ત્ય	က	41	Н	Q	(C)	41	-1	OI.	m	ধা				Tota
8 Prior 1860 200 200 108 37 200 200 18 182 200 200 72 184 195 195 195 195 FY 2000 19	Inputs																									
92 200 200 163 184 185 185 181 185 185 186 186 186 186 186 186 186 186 186 186 186	FY 1996 & Prior	1860	200	200	200																					256
37 200 200 18 182 200 200 72 182 200 200 72 193 195 195 195 195 195 195 195 195 195 195	FY 1997					92																				99
R Prior 1400 198 198 198 195 181 14 195 195 56 159 56 159 195 195 195 195 195 197 14 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 3 4 3 3 3	FY 1998								37																	99
R Prior 1400 198 198 198 181 185 186 188 189 195 195 195 195 195 195 195 195 195 19	FY 1999												182													99
R Prior 1400 198 198 196 195 191 195 195 196 196 196 196 196 196 196 197 198 199 198 199 199 199 199 199 199 199	Outputs																									
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 2 3 4 1 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 1996 & Prior	1400	198																							256
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 T 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 1997							4																		9
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 1998											139														9
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2	FY 1999														69											99
				FY 200	0			FY 200	Ξ			FY 200	22			FY 200	33			FY 200	4		FY 200	2		
= Y 2000 = Y 2001 = Y 2002 = Y 2003 = Y 2000 = Y 2001 = Y 2003 = Y 2003 = Y 2003 = Y 2003			_	2			-	C3			_	2				0			-	2		4	2		4	
FY 2000 FY 2002 FY 2003 Outputs FY 2000 FY 2000 FY 2000 FY 2001 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003	Inputs																									
FY 2002 FY 2003 FY 2003 FY 2000 FY 2001 FY 2001 FY 2002 FY 2002 FY 2003 FY 200	FY 2000																									
FY 2002 FY 2003 Outputs FY 2000 FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2003 FY 2003	FY 2001																									
FY 2003 FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003	FY 2002																									
Outputs FY 2000 FY 2002 FY 2003 FY 2003 Remarks:	FY 2003																									
FY 2000 FY 2001 FY 2002 FY 2003	Outpute																									
FY 2002 FY 2003 FY 2003 Remarks:	FY 2000																									
FY 2002 FY 2003 Remarks:	FY 2001																									
FY 2003 Remarks:	FY 2002																									
Remarks:	FY 2003																									
	Remarks:																									

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Armament Enhancement Initiative (AEI) 1-89-05-4226		
MODELS OF SYSTEMS AFFECTED:	M1A1 Only (4351ea.)		

The Armament Enhancement Initiative is a high priority program to improve the lethality of the Abrams Tank by improving the tank ammunition. This modification allows the 120mm equipped tank fleet to accept ammunition round upgrades through improvements to The ammunition round upgrades will significantly improve kill probabilities for the fielded M1A1 fleet. Finally, this program includes the upgrade of the first 1629ea M1A1 gun mounts to the higher pressure AEI configuration [The balance of delivered gun mounts were supplied in this configuration for production]. the fire control system via new ballistic solutions and reticle changes.

USER PRIORITY: #1.

	DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES
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	TENT
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	DEVE

ENI STATUS / MAJOR DEVELOPMENT MILESTONES:		
	Į	ACCOMPLISHED
Freilminary Design Heview;		3091
Critical Design Review:	3091	4091
Contractor Test and Evaluation:	3091	4091
Development Test and Evaluation:	N/A	N/A
Inital Operational Test and Evaluation;	4091	1092
IPR Production Decision	N/A	N/A
TDP Available:	2092	1092

					QNI	VIDUAL	INDIVIDUAL MODIFICATION	CATION							Date		Februa	February 1997	
MODIFICATION TITLE (Cont):		Ar	Armament En	nt En	hance	ment	hancement Initiative (AEI) 1-89-05-4226	(AEI)	1-89-0	5-4226	46								
FINANCIAL PLAN: (\$ in Millions)	EV 1006	90													1				
	and Prior	Jor Jor	FY 1997	197	FY 1998	398	FY 1999	-	FY 2000	\vdash	FY 2001	FY	FY 2002	FY 2003	003	TC		TOTAL	AL
	Qty	ક્ક	Ofty	€9	Off	€9	Off		Oty \$	Q	\$	ð	8	Qŧ	\$	Q.	49	Oţ.	€9
RDT&E																			
PROCUREMENT																Ī			
Kit Quantity	4351										-							4351	
Installation Kits																			
Installation Kits Nonrecurring																			
Equipment .		26.4																	26.4
Equipment Nonrecurring																			
Engineering Change Orders																			
In/House Support		3.2																	3.2
Training Equipment			***								-								
Support Equipment						•		753											
Other [Gun-Mount Rebuild]		15.2					_												15.2
Interim Contractor Support				<u></u>															
Installation of Hardware																			
FY 1996 & Prior Eqpt - 4351	4201	15.3	150	4.0												***		4351	15.7
FY 1997 Eqpt Kits								_							**				
FY 1998 Eqpt Kits											*********								
FY 1999 Eqpt Kits																		••	
FY 2000 Eqpt kits																			
FY 2001 Eqpt kits																			
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost	4201	15.3	150	0.4														4351	15.7
Total Procurement Cost		60.1		0.4															60.5
	1																		
METHOD OF IMPLEMENTATION: See Remarks	: See Rei	narks			ADMINE	STRATI	ADMINISTRATIVE LEADTIME:	TIME:	2 40	Months	hs	PHOD	UCTION	PRODUCTION LEADTIME:	ij Σ	<u>ح</u> د	Months		
Contract Dates:	LU	FY 1997:				_ 1	FY 1998:		Nov of	96		FY 1999:	50 6						
Delivery Date:	_	FY 1997.				-	FY 1996:		MON	00.		FY 1999:	 						

Installation Schedule:	7	rmam	ent E	nhand	emer	nt Initii	ative (AEI)	Armament Enhancement Initiative (AEI) 1-89-05-4226	5-422	9					Date			February 1997	266					
	1880		—	FY 1997			FY 1998	866			FY 1999	36		ш	FY 2000			Ŧ	FY 2001						
	& Prior		QI	ත	41	-1	CM.	(C)	41	+1	CII	(C)	4	21	(2)	4	-	CI.	က	4					Total
Inputs																1			ı	1					NA.
FY 1996 & Prior	4351																								201
FY 1997																									14351
FY 1998																									
FY 1999																									
Outputs																									
FY 1996 & Prior	4201	40	40	40	30																				i c
FY 1997																									4351
FY 1998																									
FY 1999																									
			FY 2000	0		_	FY 2001	_		Œ	FY 2002			FY2	FY 2003			FY 2004	04			FY 2005	ic		
		-	2	က	4	-	N	က	4	-	8	က	4	-	2		4	~	2	4	-	0	C.	A	Total
Inputs																					•	1	•	+	Tolai
FY 2000																									
FY 2001																									
FY 2002																									
FY 2003																									
Outputs																									
FY 2000																									
FY 2001																									
FY 2002																									
FY 2003																									
Remarks:				1																					

Item No. 20 Page 16 of 55

IMPLEMENTATION: Gun mounts by RIA team, reticles by contractor team, application by depot team.

MODIFICATION TITLE: Precision Lightweight GPS Receiver (PLGR) 1-92-05-4417 MODELS OF SYSTEMS AFFECTED: M1 = 0; M1A1 = 4351; M1A2 = 0 TOTAL RQMT = 4351ea		INDIVIDUAL MODIFICATION		Date	February 1997
M1 = O; IPM1 = 0; M1A1 = 4351; M1A2 = 0		ceiver (PLGR) 1-92-0	5-4417		
	M1 = 0; IPM1 =	4351; M1A2 = 0	TOTAL ROMT =	4351ea	

The Precision Lightweight GPS Receiver [PLGR] is a self-contained unit which can collect and process GPS satellite signals and derive Position [To within 10 meters], Velocity and Time [PVT]. The funding shown is for the PLGR Installation Kit only; the PLGR units will be procured and provided to PM Abrams by PM GPS.

USER PRIORITY: 3

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	DI ANNED	ACCOMP. ISHED
Preliminary Design Review:	2091	2Q91
Critical Design Review:	4091	4091
Contractor Test and Evaluation:	3093	3093
Development Test and Evaluation:	3093	3093
Inital Operational Test and Evaluation:	2094	2094
IPR Production Decision	4094	4094
TDP Available:	3Q96	



FY 1996	999 3 20 130	-1	FY2	FY 2000		FY 2001				
8 Prior 2383 80 150 150 120 30 150 150 150 150 150 150 150 150 150 15	20 20 130	ન	0	1						
8 Prior 2383 8 150 150 120 3 150 150 150 150	20		ı	M	41	2	4			Total
8 Prior 2383 8 Prior 2383 FY 2000 FY 2001 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	130									
80 150 150 150 150 150 150 150 150 150 15	20									2383
8 Prior 2383 FY 2000 FY 2001 1 2 3 4 1 2 3 4 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	130									500
8 Prior 2383 125 125 125 125 125 125 125 125 125 125										500
8 Prior 2383 125 125 125 125 125 125 125 125 125 125		150 150	0 70							500
8 Prior 2383 125 125 125 125 125 125 125 125 125 125										
FY 2000 FY 2001 1 2 3 4 1 2 3 4 1 80 150 150 88										2383
FY 2000 FY 2001 1 2 3 4 1 2 3 4 1 80 150 150 88										9
FY 2000 FY 2001 1 2 3 4 1 2 3 4 1 80 150 150 88										500
FY 2000 FY 2001 1 2 3 4 1 2 3 4 1 80 150 150 88	125 125	ູດ								200
1 2 3 4 1 2 3 4 1 8 8 4 1 1 8 8 150 150 150 150 150 150 150 150 150 150	١									
80 150 150 88	cr.	4	FY 2003	, 100	•	FY 2004	•	FY 2005	c	
80 150 150	•				•	1		N		1018
										AGR
7 2002 7 2003 utputs										ř
7 2003 utputs										
utputs										
FY 2000 125 125 125 125										500
FY 2001 125 125 93										468
FY 2002										2
FY 2003										
Remarks:										

Live Fire Category A consists of the following M1A1 Tank modifications: [1.] Independent Manual Blaster, [2.] Driver's / Loader's Hatch Ballistic Rims, [3.] AFES Wiring Harness Ballistic Protection and [4.] Driver's / Loader's Hatch Latch Mechanism. Each of these modifications corrects a deficiency relating to tank survivability found during Live - Fire testing. These modifications will be procured together and applied concurrently as a portion of Block G.

USER PRIORITIES: 2d, 2e, 4a, 4b

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	2089	2Q89	
Critical Dasign Review:	1091	1091	
Contractor Test and Evaluation:	4091	4Q91	
Development Test and Evaluation:	N/A	N/A	
Inital Operational Test and Evaluation:	N/A	N/A	
IPR Production Decision	2092	2092	
TDP Available:	4092	4092	

					QNI	IVIDUA	INDIVIDUAL MODIFICATION	ICATIO	z						°	Date		Februs	February 1997	
MODIFICATION TITLE (Cont):		7	ve Fir	e Cate	gory A	(LFC	Live Fire Category A (LFCA) 1-89-05-4230	9-05-4	1230											
FINANCIAL PLAN: (\$ in Millions)	2	1006																		
	and	and Prior	FY.	FY 1997	FY 1998	866	FY 1999	66	FY 2000	8	FY 2001	10	FY 2002	02	FY 2003	03	TC		TOTAL	AL
	Q.	8	ğ	s	Ofy	ક્ક	Oth	€9	Qty	8	Qfy	8	Off.	69	Off.	69	Qfy	69	δ	49
RDT&E																				
PROCUREMENT	9		-		0		9													
Kit Quantity	2010		391		380		380		390		330		330						4351	
Installation Kits								-								-				
Installation Kits Nonrecurring																				
Equipment		8.6		-		-		-		Ci Ci		د .		 6:						16.9
Equipment Nonrecurring															•	-				
Engineering Change Orders						•		-					-							
Data				,				-			-,	-								
Training Equipment							******											-	-13	
Support Equipment					•			-												
Other [In / House Support]		0.1		0.1		0.1		0.1		0.1				0.1						9.0
Interim Contractor Support																•				
										- 4										
Installation of Hardware																				
EV 4006 9 Dates Front Co.	7.700		040	0				_											0	
Щ	1400	4.5	010	3.0												_			2010	8.1
			139	0.1	252	1.5													391	2.5
					139	0.	251	1.5								_			390	2.5
FY 1999 Eqpt 390							139	1.0	251	1.6		-							390	2.6
FY 2000 Eqpt 390									139	7.	251	1.6					-		390	2.7
FY 2001 Eqpt - 390											139	1.0	251	1.6					390	2.6
FY 2002 Eqpt - 390								·w					139		251	1.8			390	2.9
FY 2003 Eqpt kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installation Cost	1400	5.5	749	4.6	391	2.5	390	2.5	390	2.7	390	2.6	390	2.7	251	1.8			4351	23.9
Total Procurement Cost		14.4		5.8		3.7		3.7		4.0		3.9		4.1		1.8				41.4
	(i	ı													!				
METHOD OF IMPLEMENTATION: CONTractor Field Learn Contract Dates:	S. Conf	actor F/8/ EV 1997:	310 lear 7.	AN		HAI	ADMINISTRATIVE LEADTIME:) IME:	=	M 27 M	Months 7	r u	PHODUCIION LEADIIME:		EADIII		5 N	Months		
Delivery Date:		FY 1997:		JUL 97		- 11	FY 1998:		5 7			. 11.	FY 1999		•	-	۰ ،			
Delitary Date:							1000						2001		<u>'</u>					

FV 1996 FV 1997 FV 1996 FV 2001 FV 2001 FV 2001 FV 2001 FV 2001 FV 2001 FV 2001 FV 2001 FV 2001 FV 2001 FV 2001 FV 2002 FV 2001 FV 2002 FV 2001 FV 2002 FV 2	installation Scribdule.		Ve TI	d Cal	c non	シェ	Live Fire Category A (LFCA) 1-89-05-4230	-02-	-02-4z	30								Date		-	February 1997	1997				
Retion 1510 175 175 150 150 151 151 151 151 151 151 151 15		FY 1996		Ε¥	1997			FY	1998			FY 1	6661			FY	2000			Œ	, 2001					
R Prior 1510 175 150 100 1		& Prior		CM.	ത	41	₩-	CI	m	41	-	NI.	ന	4	-	C	ന	4	-	N	က	4				Total
Refiner 1510 175 150 91 100	nputs																	i	I	1	ı	i				
Retion 1400 187 187 187 189 88 86 54 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 4 1 2 3 4 1 4 1 2 3 4 1 4 1 2 3 4 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 1996 & Prior	1510																								20
Rethor 1400 187 187 187 48 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 3 4 1	'Y 1997				25																					
Rethor 1400 187 187 187 187 189 98 56 56 57 57 57 57 57 57 57 57 57 57 57 57 57	Y 1998							6		100	100	81) m
R Prior 1400 187 187 49 139 98 98 56 42 98 98 56 44 98 98 98 52 FY 2003 FY 2004 FY 2005 1 2 3 4 1 3 3 4 3 3 4 3 3	Y 1999											19														390
Rethior 1400 187 187 49 56 56 57 57 57 57 57 57 57 57 57 57 57 57 57	utputs																									
139 98 98 54	Y 1996 & Prior	1400																								20
FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2003 FY 2004 FY 2005 FY 2004 FY 2005 FY 2004 FY 2005 FY 200	Y 1997					139																				ñ
FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2004 FY 2005 FY 200	Y 1998								42	98	98	98														ñ
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2004 FY 2005 FY 2006 FY 2006 FY 2005 FY 2005 FY 2005 FY 2006 FY 2006 FY 2007 FY 2005 FY 2007 FY 2005 FY 2007 FY 2005 FY 2007 FY 200	Y 1999												4													390
1 2 3 4 1 2 3				FY 200	0			FY 200	-			FY 200	Ø			FY 200	33			FY 20	104			FY 20	05	
29 100 100 61 39 100 100 100 51 49 100 100 100 41 46 98 98 50 42 98 98 54			-	2	က			Ø	က	4	_	8				Ø							-	N		
29 100 100 100 100 100 100 100 100 100 41 46 98 98 50 42 98 98 56	puts																									
46 98 98 50 40 98 98 56 42 98 98 56 43 100 100 100 41 46 98 98 56 40 98 98 56 42 98 98 54	Y 2000			29				61																		Š
46 98 98 50 46 98 98 56 42 98 98 56 42 98 98 54	Y 2001							39	100	100	100	51														Š
46 98 98 50 40 98 98 56 42 98 98 54	Y 2002											49	100	100												ĕ
46 98 98 50 40 98 98 56 42 98 98 54	Y 2003																									
46 98 98 50 40 98 98 56 42 98 98 54	utputs																									
40 98 98 56 42 98 98 54	Y 2000				46			98	20																	3
42 98 98 54	Y 2001								40	98	86	98	26													8
	Y 2002												42	98	98				•							33
	7 2003				į																					



	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Battlefield Override (BF/OR) 1-89-05-4229		
MODELS OF SYSTEMS AFFECTED:	M1 = 0; $IPM1 = 0$; $M1A1 = 3850$; and $M1A2 = 407$	TOTAL ROMT: 4257EA	

use in combat situations ONLY; has no peace - time recovery role and is based on the premise that crew / tank self recovery takes battlefield when normal fuel flow, engine control or transmission shifting have been lost through battle damage. It is designed for Battlefield Override is a completely mechanical fuel, engine control, and transmission bypass requiring NO primary or back-up priority over potential engine or transmission damage resulting from uncontrolled operations. This modification will significantly electrical system for operation. The purpose of Battlefield Override is to allow an Abrams Tank to extricate itself from the improve crew / tank survivability in a combat environment.

USER PRIORITY - 3

OPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	4Q91	4091	
Critical Design Review:	1092	2092	
Contractor Test and Evaluation:	2092	3Q92	
Development Test and Evaluation:	1093	3093	
Inital Operational Test and Evaluation:	N/A	N/ A	
IPR Production Decision	1093	3Q93	
TDP Available:	3094	1095	

MODIFICATION TITLE (Cont):		Be	attlefie	ld Ove	erride	(BF/O	Battlefield Override (BF/OR) 1-89-05-4229	9-05-4	1229											
FINANCIAL PLAN: (\$ in Millions)	FV 1996	966																		
	and Prior	rior	FY 1997	266	FY 1998	198	FY 1999	66	FY 2000	00	FY 2001	01	FY 2002	02	FY 2003	03	TC		TOT	TOTAL
	δ	€	Q	€9	δ	s	Q _t y	\$	Oty	€9	Offy	49	O P	69	S S	€9	O.	8	Š	69
RDT&E PROCUREMENT				-																
Kit Quantity	2435	*****	333		333		333	- 11	333		333		332						4432	
Installation Kits Nonrecurring																				
Equipment		6.6		6.0		6.0		6.0		0.6		0.5		0.4						10.8
Equipment Nonrecurring																				2
Engineering Change Orders		- :																		_
Engineering / Testing		0.2											-							0.2
Training Equipment																				
Other (Spares Kits)																				
Disding Contractor Consort						-														
and the second second										***					-					
FY 1996 & Prior Font - 2435	1422	0	667	0	222	1	Ç	Ť			-									
FY 1997 Eapt Kits 333		2	3	9	3	:	200	- u	C	,									2435	6.1
							040		330	· ·	C	,		-					333	9.1
						-			3	:	320		5	-					555	- c
							***				040	4.0	320		0	·			555	5.0
													050	5.	000		Ç		555	0.4
															220	5	233	- c	333	4.0
							****							-		_	300	5.	200	Š
(FY(TC) Eqpt (xx kits)		-																		
Total Installation Cost	1422	1.0	299	3.3	333	1.7	333	1.6	333	1.2	333	0.3	333	0.4	333	0.4	345	0.4	4432	10.3
Total Procurement Cost		8.9		4.2		2.6		2.5		1.8		0.8		0.8		0.4		0.4		22.4
METHOD OF IMPLEMENTATION: Depot Field Team Contract Dates:	Depot F	Field Tea FY 1997:		A MAY 97	DMINIS	TRATIV	ADMINISTRATIVE LEADTIME: 97	TIME:	M	2 Mc MAY 98	Months 38	<u>a</u> û	PRODUCTION LEADTIME:	TION	EADTIME	ME:	9	Months		
	1																			



Pri 1996 Pri 1997 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1998 Pri 1999	Installation Schedule:		Battlefield Override (BF/OR) 1-89-05-422	S S S	Verrid	<u>n</u>	-OH)	ביים ביו	12-TE	S										_	February 1997	266					
R Prior 1 5 6 175 175 175 175 175 175 175 175 175 175	_	FY 1996		Ŧ	1997			FY 1	866			FY 1	666			FY	2000			F	2001						
R Prior 1586 175 175 139 100 100 5 R Prior 1422 167 167 166 84 83 13 13 13 13 13 13 14 14 2 3 4 1 2 </th <th></th> <th>& Prio</th> <th></th> <th>O</th> <th>ന്</th> <th>41</th> <th>-</th> <th>CVI</th> <th>mi</th> <th>41</th> <th>-</th> <th>C)</th> <th>co_i</th> <th>41</th> <th>-</th> <th>2</th> <th>M</th> <th>41</th> <th>-</th> <th>C)</th> <th>(C)</th> <th>41</th> <th></th> <th></th> <th></th> <th></th> <th>Total</th>		& Prio		O	ന്	41	-	CVI	mi	41	-	C)	co _i	41	-	2	M	41	-	C)	(C)	41					Total
8 Phor 156 175 175 175 139 14 150 150 22 2	iputs																										
R Prior 1422 167 167 168 64 83 83 13 13	Y 1996 & Prior	1596																									2435
8 PHor 1422 167 167 168 84 83 83 13 13 13 14 12 2 3 4 1 2 3 4 1 2 3 6 100 100 71 142 17 183 83 13 14 1 2 3 4 1 1 2 3 14 14 1 2 3 14 1 1 2 3 14 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Y 1997						=	150	150	22																	333
Retion 1422 167 167 166 84 83 83 13 13 13 14 18 83 83 13 14 17 83 83 13 14 17 83 83 13 14 18 83 83 13 14 18 83 83 13 14 18 18 83 83 13 14 18 18 18 18 18 18 18 18 18 18 18 18 18	Y 1998									128	100	100	ည														333
R Prior 1422 167 167 166 64 63 63 13 13 71 83 83 13 71 83 83 13 71 83 83 13 71 83 83 13 71 83 83 13 71 83 83 83 13 71 83 83 83 13 71 83 83 83 13	Y 1999												95	100	100	38					-						333
FY 2000																											
FY 2000	utputs																										
FY2000 FY2001 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Y 1996 & Prior	142%							83	83	5																2435
FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 2 3 4 1 1 2 3 3 4 1 1 3 3 3 4 1 3 4 1 1 2 3 3 4 1 1 2 3 3 4 1 3 4 1 1 2 3 3 4 1 3 4 1 1 2 3 3 4 1 3 4 1 1 2 3 3 4 1 3 4 1 1 2 3 3 4 1 3 4 1 1 2 3 3 4 1 3 4 1 1 2 3 3 4 1 3 4 1 1 2 3 3 4 1 3 4	Y 1997										71	83	83	83													333
FY 2000 FY 2001 FY 2001 FY 2002 FY 2002 FY 2003 FY 2003 FY 2004 FY 2005 FY 200	Y 1998														7	83											333
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2005 FY 2006 FY 2005 FY 200	Y 1999																		7								333
FY2000 FY2001 FY2002 FY2003 FY2003 FY2005 1 2 3 4 1 3 4 1																											
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 3 2 3 4 1 3 4 1 3 3				FY 20	8			FY 200	-		ui	.Y 2002	O!			FY 200	33			FY 20	40			FY 200.			
52 100 100 71 29 100 100 4 96 100 100 36 71 83 83 83 13 71 88 83 83 13 71 88 83 83 83 83 83			***	8			-	Q	က	4	-	2		4	-	2							-	2	က	4	Total
62 100 100 71 29 100 100 4 96 100 100 36 71 83 83 13 71 83 83 83 83 83 83 83 83 83 83 83 83 83	iputs																										
29 100 100 4 96 100 100 36 71 83 83 13 71 83 83 83 83 83 83 83 83 83	Y 2000			62																							333
71 83 83 13 71 88 83 83 83 83 83 83 71 83 83 83 83	Y 2001						29		100	100	4																333
71 83 83 13 71 83 83 13 71 83 83 83	Y 2002										96	100	100	36													332
71 83 83 13 71 83 83 13 71 83 83 83	Y 2003																										
71 83 83 13 71 83 83 13 71 83 83 83	utputs																		*								
71 83 83 13 71 83 83 83	Y 2000						71	83	83	83	13																333
71 83 83 83	Y 2001										7	83	83	83	13												333
Y 2003	Y 2002														7	83				٠.							332
	FY 2003																										

	TAIL THE CALL LAND CONTROL OF THE CALL CONTROL		
	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Live Fire Category B (LFCB) 1-94-05-4481		
MODELS OF SYSTEMS AFFECTED:	M1 - 0 : IDM1 - 0 : M41A1 - 4254 : M44A0 04	+++0+	
	, ,	IOIAL HUMI = 4432ea	

Live Fire Category B includes the following individual modifications: [1.] Improved Gunners Station, [2.] Smoke Generator Fuel Line and [3.] Turret Ammunition Door Locking Mechanism. Each of these modifications corrects a vehicle deficiency found during Live Fire Testing. These modifications will be procured and applied simultaneously as a portion of Block G.

USER PRIORITY: 4c

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	N/A	N/A	
Critical Design Review:	4093	4093	
Contractor Test and Evaluation:	N/A	A/N	
Development Test and Evaluation:	1094	1094	
Inital Operational Test and Evaluation:	N/A	N/A	
IPR Production Decision	4093	4Q93	
TDP Available:	2094	4094	

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MODIFICATION TITLE (Cont):		Ę	Live Fire Cate	Cate	egory B		(LFCB) 1-94-05-4481	-05-4	481										
FINANCIAL PLAN: (\$ in Millions)	77.	5											1						
	and Prior	g ig	FY 1997	97	FY 1998	38	FY 1999	6	FY 2000	90	FY 2001	160	FY 2002	2	FY 2003	_	<u>5</u>	10	TOTAL
	ğ	8	ð	69	à	69	Qţ	69	Of	69	हे	69	Otty	Н	Ofy \$	Of Of	\$	Qty	49
RDT&E PROCUREMENT										_									
Kit Quantity	2010		404		404		404		404		404		402					4432	
Installation Kits																			
Installation Kits Nonrecurring																			
Equipment		0.7		0.2		0.2		0.2		0.1		0.1		0.1		_			1.6
Equipment Nonrecurring						•						-,-					**************************************		
Engineering Change Orders	-	·		-															
Data					·														
Training Equipment																-			
Support Equipment																			
Other In / House Support		0.1								-									0.1
Interim Contractor Support																•			
			8																
Installation of Hardware					~														
FY 1996 & Prior Eqpt - 2010	1058	1.6	952	1.5														2010	3.1
FY 1997 Eqpt Kits 404	1				404	9.0							·					404	
FY 1998 Eqpt Kits 404							404	9.0										404	
FY 1999 Eqpt Kits 404									404	0.7								404	
FY 2000 Eqpt kits 404		-									404	0.7						404	
FY 2001 Eqpt kits 404		-											404	0.7				404	
FY 2002 Eqpt kits 402															402 C	9.0		402	
FY 2003 Eqpt kits///	***											_							
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost	1058	1.6	952	1.5	404	9.0	404	9.0	404	0.7	404	0.7	404	0.7	402 C	9.0		4432	7.0
Total Procurement Cost		2.4		1.7		9.0		9.0		9.0		8.0		8.0	٦	9.0			8.7
CONTRACTOR OF MENEVITATIONS CONTRACTOR	1	Too	1	•	CHAIR	TDATIV	ADMINISTRACTIVE	716.67				í	0.00				:		
Contract Dates:	. Debot .	FY 1997:		JUL 97	CIMINAL .	2	, 1998;	 E	, H	0	Months 8	ΞŒ	FY 1999:		PHODUCTION LEADTIME: FY 1999: JUL 9	ი .: 66	Months	<u>α</u>	
	Í																		

ú																									
	FY 1996		FY 1997	97			FY 1998	8			FY 1999	6			FY 2000	0			FY 2001	-					
	& Prior		CII	_ල	41	 !	O.	m	4	-	C.	0	4	_	C.		4	-	0		4				Loto F
Inputs																					н				3
FY 1996 & Prior	1410	150	150	150	150																				2040
FY 1997					_	110	110	110	74																3 5
FY 1998										110	110	110	38												104
FY 1999														110	110 1	110	Q								404
Outputs																									
FY 1996 & Prior	1058	238	238	238	238																				6
FY 1997					_	101	101	101	101																20102
FY 1998									_	101	101	101	101												404
FY 1999														101	101	101	101								404
		Ĺ	FY 2000			Ŧ	FY 2001			Ŧ	FY 2002			F	FY 2003			Ā	FY 2004			FY	FY 2005		
		-	2	က	4	_	2	က	4	_	2	က	4	-	8	n	4	_	8	က	4	_		c:	4 Total
Inputs																									
FY 2000					108 1	110	110	9/																	404
FY 2001								34	110 1	110 1	110	40													404
FY 2002												70 1	110 1	110 1	110	0									402
FY 2003																									ř
Outputs							e																		
FY 2000					Ť	101	101	101	101																404
FY 2001									=	101 10	101	101	101												404
FY 2002														101	101 10	101	66								400
FY 2003																									ŕ



	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE: Dri	Driver's Viewer Quick Release (DVQR) 1-92-05-4427		
MODELS OF SYSTEMS AFFECTED: M	M1 = 0; $IPM1 = 0$; $M1A1 = 4351$ and $M1A2 = 181$	TOTAL RQMT = 4532ea	

vehicle precluding injury to the driver as well as damage to the periscope. Because of its potential importance in emergency driver provides a more positive locking feature which will preclude inadvertent release of the periscope from its operations position. Its main purpose is to prevent the DNV from falling into the driver's lap when it is moved out of the driver's way as he exits the The Driver's Viewer Quick Release is a modification to the Driver's Night Viewer [DNV] Periscope Hatch Retainer. It egress this modification has a secondary safety designation. It is however, primarily an operational improvement.

USER PRIORITY: 4g

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	A/N	N/A
Critical Design Review:	4093	4093
Contractor Test and Evaluation:	N/A	N/A
Development Test and Evaluation:	1094	1094
Inital Operational Test and Evaluation:	A/N	N/A
IPR Production Decision	4093	4Q93
TDP Available:	2094	3094

					בואבו	מלויי	INDIVIDUAL MODIFICATION	2	z						Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		D	river's	Viewe	ır Quic	k Rele	Driver's Viewer Quick Release (DVQR) 1-92-05-4427	VQR)	1-92-(05-44	27								
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966				1													
	and	and Prior	FY 1997	266	FY 1998	198	FY 1999	60	FY 2000	8	FY 2001	10	FY 2002	72	FY 2003	-	70	TOTAL	A
BOTEE	ð	€9	ਣੇ	€9	ð	€9	λfo	69	à	49	हे	69	ð	€	S Y	ਰੇ	€	Otty	69
PROCUREMENT				-			·												
Kit Quantity installation Kits	1505		1027		1000		1000				100-100-	•						4532	
Installation Kits Nonrecurring																			
Equipment Nonrecuring		0.5		0.1		0.1		0.1											0.5
Engineering Change Orders																			
Training Equipment																			
Support Equipment								_		-		-							
Other															-				
Interim Contractor Support						-													
				-															
									-										
FY 1996 & Prior Eqpt - 1505	785	0.1	720	0.1	100	0		_					-					1505	0.2
					1027	N.	000	C					***************************************					1027	0
							000		1000	0								1000	0.0
									3	,		-			0.000			200	i i
FY 2001 Eqpt kits											-								
FY 2002 Eqpt kits	-								-										
FY 2003 Eqpt kits												-							
(FY(TC) Eqpt (xx kits)																			
Total installation Cost	785	0.1	720	0.1	1027	0.2	1000	0.2	1000	0.2		\vdash						4532	0.8
Total Procurement Cost		0.3		0.2		0.3		0.3		0.2				H					1.3
METHOD OF IMPLEMENTATION: Depot Field Teams	: Denot	Field Te			DMINIS	TRATIV	ADMINISTRATIVE LEADTIME:	IME		2 Mc	Months	4	TODGOS	FION LE	PRODUCTION LEADTIME:	6	Months		
Contract Dates:	ш.	FY 1997:			9	LL i	FY 1998:		OCT	0,		Ţ	FY 1999:		OCT				
Delivery Date:	_	FY 1997:		DEC 36		I.	FY 1998:		DEC	EC 97		Ŧ	FY 1999:		DEC (98			

Installation Schedule:		river's	Driver's Viewer Quick Release (DVQR) 1	er Qu	ick R	eleas	e (DV	QR) 1	1-92-05-4427	5-442	7:						Date		_	February 1997	1997					
	FY 1996		FY 1997	266			F	FY 1998			Ŧ	FY 1999			Ŧ	FY 2000			Ŧ	FY 2001						
	& Prior	-	CVI	ଠା	41	-1	C 1	(2)	41	-1	OI	ମ	41		2	m	41	-	O.	n	41					Total
Inputs																										
FY 1996 & Prior	1505																									1505
FY 1997		250	250	250	250	27																				1027
FY 1998						223	250	250	250	27																1000
FY 1999										223	250	250	250	27												1000
Outputs																										
FY 1996 & Prior	785	180	180	180	180																					1505
FY 1997						257	257	257	256																	1027
FY 1998										250	250	250	250													1000
FY 1999														250	250	250	0 250									1000
			FY 2000	0			FY 2001	=			FY 2002	22			FY 2003	03			FY 2004	304			FY 2005	900		
		-	N	က	4	_	01	က	4	-	N	က	4	-	N	8	3 4		,,	0	8	4	-	8	8	4 Total
Inputs	•																									
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Outputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Remarks:																										
** Less than \$0.1M.	Ž.																									

current system requires frequent servicing in such an environment which can introduce dust into the engine as the integrity of the clean air path is The PJAS modification extends the time between required service to the air filtration system of Abrams tanks in a severe dust environment. The broken during servicing. PJAS will greatly reduce the frequency of such servicing, thus improving combat performance and reducing O&S costs. PJAS was identified as user priority Number One by Abrams Tank units involved in ODS (Operation Desert Storm).

USER PRIORITY: 5

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
	PLANNED	ACCOMPLISHED
Preliminary Design Review:	2092	2092
Critical Design Review:	3092	3Q92
Contractor Test and Evaluation:	3093	3Q93
Development Test and Evaluation:	3093	3Q93
Inital Operational Test and Evaluation:	4093	4093
IPR Production Decision	4093	4Q93
TDP Available:	2096	2096

					INDI	"IDUAL	INDIVIDUAL MODIFICATION	CATION							Õ	Date		February 1997	y 1997	
MODIFICATION TITLE (Cont):		Pul	Pulse Jet Air		ystem	(PJAS	System (PJAS) 1-92-05-4475	-05-44	.75											
FINANCIAL PLAN: (\$ in Millions)		Į,																		
	FY 1996 and Prior	9 5	FY 1997	16	FY 1998	88	FY 1999	6	FY 2000	0	FY 2001	=	FY 2002	12	FY 2003	03	TC	0	TOTAL	AL
	Off	Н	Q	49	ð		Δţο	Н	Offy	\$	È		SF)		È	69	ð	€9	Q _t	69
RDT&E																				
PROCUREMENT					•	-	1													
Kit Quantity	492		144		24		62		62		124		124		124		3423		4579	
Installation Kits																				
Installation Kits Nonrecurring																				
Equipment		12.4		7.1		1.0		2.8		3.0		5.7		5.8		5.8		213.8		257.4
Equipment Nonrecurring	-,	0,8								-				,						0.8
Engineering Change Orders		2.1																		2.1
Testing		9.																		1.6
Training Equipment			-													_				
Support Equipment			-																	
Other [in / House Spt]		6.		0.1									_,							1.4
Interim Contractor Support								-												
Installation of Hardware											7									
FY 1996 & Prior Eqpt - 492	-		277	2.3	100	8.0	24	0.2	62	9.0	28	0.2	_	-					492	4.1
FY 1997 Eqpt Kits 144											34	0.4	110	1.0	1 1			•	144	1.4
FY 1998 Eqpt Kits 24												_	4	0.1	10	0.1			24	0.2
FY 1999 Eqpt Kits 62															62	9.0			62	9.0
FY 2000 Eqpt kits 62														•••	25	0.5	10	0.1	62	9.0
FY 2001 Eqpt kits 124																	124	<u>-</u> 5	124	1.2
FY 2002 Eqpt kits 124																	124	4.2	124	4.
FY 2003 Eqpt kits 124																	124	1.2	124	1.2
(FY(TC) Eqpt (xx kits) 3423																	3423	42.4	3423	42.4
Total Installation Cost	1		277	2.3	100	8.0	24	0.2	62	9.0	62	9.0	124	1.1	124	1.2	3805	46.1	4579	52.9
Total Procurement Cost		18.2		9.5		4.8	-	3.0		3.6		6.3		6.9	_	7.0		259.9		316.2
METHOD OF IMPLEMENTATION: Contractor/Debot Field	d: Contracte	or/Depx	ot Field	₹	ADMINIS	TRATIV	ADMINISTRATIVE LEADTIME:	TIME:	=	ο M Θ	Months	مَ نَ	PRODUCTION LEADTIME:	TION	EADTIME	ME:	=	Months		
Contract Dates: Delivery Date:	.	FY 1997:			66	LL	FY 1998:		Š	MAY 99		LĹ	FY 1999:		MAY	% 38 1√ 39				
																				l

FY 1996	96	ı	FY 1997			L	1000 X			i									-	100			
20 %						-	1330			Υ	FY 1999			FY	FY 2000			F	FY 2001				
3	or 1	C)	(C)	41	1		2	41	-	OI	Ø	4		C)	က	4	-	8	e	4		C F	Total
Inputs														ı	i	ı	1	t	×	1	•	4	7
FY 1996 & Prior	99	50 5	20	20	20	35	35	35	35 3	35 35	5 16												
FY 1997												36	36	35	Ç								
FY 1998											i												
FY 1999															N	36	24					•	
Outputs																							
FY 1996 & Prior	1 70		70 7	20	. 29	16	16	16	16 1	15 15	3 15	15	16	16	15	15	16	12					
FY 1997																		4	15	15		110	
FY 1998																						24	
FY 1899																						62	
		FY 2000	000			FY 2001	001			FY 2002	02			FY 2003	9			EV 2004	2				
	-		8	ဗ	4	-		က	4	2	co.	4	-	~	er.	4	*		,	_		ر 1	F
Inputs														l			•	3				2	Total
FY 2000																						62	
FY 2001																						124	124
FY 2002																						124	104
FY 2003																						124	124
																						3423	3423
Outputs																							
FY 2000																						62	
FY 2001																						124	124
FY 2002																						124	124
FY 2003																						3547 *	
Remarks:	Includ	es FYC	04 & €	out "Tc	Com	Includes FY04 & out "To Complete" Quantity.	Quantity																



	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Mounted Water Ration Heater (MWRH) 1-92-05-4426		
MODELS OF SYSTEMS AFFECTED:	M1 = 0; $IPM1 = 0$; $M1A1 = 1501$ and $M1A2 = 1079$	TOTAL RQMT = 2580ea	

The purpose of the Mounted Water Ration Heater [MWRH] is to provide the Abrams Tank crew with the internal capability to heat water and rations during extended field operations without having to exit from the protection of the vehicle.

NOTE: ATCOM / PM SOLDIER have procured the MWRH. Abrams Tank funds listed here - in are for the integration kit and installation only.

USER PRIORITY: ap10

Part Part					-														400000		
PANI, (8 in Millions) FY 1896 FOR S CDY	MODIFICATION TITLE (Cont):		M	lounted	J Wate	ır Rati	on He	ater (N	(WRH)	1-92-(05-44	56									
Famewrite Fame	FINANCIAL PLAN: (\$ in Millions)	FY 18	966																		
ENT 1501 1.8 GW \$ GW \$ GW \$ GW \$ GW \$ GW \$ GW \$ GW		and	Prior	FY 1	266	FY 1	866	FY 19	660	FY 200	9	FY 200	1	FY 200	2	FY 2003		7	-	TOTAL	
1501 1501 1501 1.8 1.8 1.8 1.8 1.5 1		QÎ QÎ	69	à	€9	ð	89	è		ŧ	Н	È	Н	Ą	Н			H	H	ty.	49
15 16 17 17 17 17 17 17 17	RD1&E PROCUREMENT Kit Quantity	1501															· · · · · ·	\$		00	
Change Orders Change Order	Installation Kits		1.8														2			080	3.3
Ordange Orders Out 750 0.2 751 0.2 751 0.2 751 0.2 1079 0.3 Prior Egpt - 150ri (pment thouse Support) Prior Egpt - 150ri (pment thouse Support) Prior Egpt - 150ri (pment thouse the support that the support is the support to the support that the support	Equipment									-											
Priorings Charles Priorings Charles Priorings Charles Priorings Charles Priorings Charles Priorings Charles Priorings Prio	Equipment Nonrecurring				-			<u> </u>													
Impense Impe	Engineering Criange Orders Data																				
Priore Support	Training Equipment		-																	_	
The state of the	Support Equipment																				
Hardware Prior Eggt - 1501 0 750 0.2 751 0.2 ppt - Kits ppt - Ki	Uner [In / House Support] Interim Contractor Support		0.1				- w		_												0.1
Hardware Prior Egpt - 1501 0 750 0.2 751 0.2 qpt - Kits qpt - Kit			-74.						-												
Prior Egpt - 1501 0 750 0.2 751 0.2 apt Kits apt Kits apt Kits apt Kits apt Kits apt Kits apt Kits	Installation of Hardware																		··		
qpt Nts qpt Kits qpt Kits qpt Kits pt (xx kits) 1079 0.2 ilon Cost 1.9 ilmPLEMENTATION: Unit Maint./Depot Team ADMINISTRATIVE LEADTIME: 3 Months FY 1999: FY 1999: FY 1997: FY 1998: FY 1999: FY 1999: FY 1997: FY 1998: FY 1998: FY 1997: FY 1998: FY 1997: FY 1998: FY 1998: FY 1997: FY 1998: FY 1998: FY 1997: FY 1998: FY 1998: FY 1997: FY 1998: FY 1998: FY 1997: FY 1998: FY 19	FY 1996 & Prior Eqpt - 1501	0		750	0.2	751	0.5												-	501	0.4
application	FY 1998 Font Kits																				
apt kits apt kits 1079 0.3 apt kits apt kits 1079 0.3 apt kits apt kits 1079 0.3 apt kits apt kits 1079 0.3 apt kits apt kits 1079 0.3 stion Cost apt kits 1079 0.3 ifon Cost apt kits 1079 0.3 rement Cost apt kits 1079 0.3 rement Cost apt kits apt kits apt kits apt kits rement Cost apt kits apt kits apt kits apt kits rement Cost apt kits apt kits apt kits apt kits rement Cost apt kits apt kits apt kits apt kits rement Cost apt kits apt kits apt kits apt kits rement Cost apt kits apt kits apt kits apt kits rement Cost apt kits apt kits	FY 1999 Eqpt Kits			1.					-												
qpt kits qpt kits 1079 0.3 qpt kits qpt kits 1079 0.3 qpt kits pt (xx kits) 1079 0.3 lion Cost 750 0.2 751 0.2 1079 0.3 rement Cost 1.9 0.2 0.2 1.8 1.8 1.8 IMPLEMENTATION: Unit Maint./Depot Team ADMINISTRATIVE LEADTIME: STARS 3 Months FY 1999: 1.8 S: FY 1997: FY 1997: FY 1997: FY 1999: FY 1997: FY 1997: FY 1999: FY 1997: F	FY 2000 Eqpt kits																				
apt kits apt kits 1079 0.3 pt (xx kits) 1079 0.3 pt (xx kits) 1079 0.3 iton Cost 1.9 0.2 1.8 rement Cost 1.9 0.2 1.8 implement Cost 1.9 0.2 1.8 implement Cost FY 1997: FY 1998: FY 1999:	FY 2001 Eqpt kits										·										
tip (xx kits) 1079 0.3 pt (xx kits) 1079 0.3 from Cost 1.9 0.2 751 0.2 1079 0.3 rement Cost 1.9 0.2 0.2 1.8 1.8 1.8 IMPLEMENTATION: Unit Maint./Depot Team ADMINISTRATIVE LEADTIME: 3 Months FY 1999: 3 Months	FY 2002 Eqpt kits																		_	-	
pt (xx kits) 1079 pt (xx kits) 1079																					
Implement Cost 750 0.2 751 0.2 103 0.3 Implement Cost 1.9 0.2 0.2 0.2 1.8 1.8 IMPLEMENTATION: Unit Maint./Depot Team ADMINISTRATIVE LEADTIME: 87 1998: FY 1999: FY 1999: FY 1999: FY 1999: FY 1997: FY 1	∞																107			620	0.3
FY 1997: FY 1997: FY 1907: FY 1907: FY 1907: FY 1909:	Total Installation Cost			750	0.2	751	0.2										107			580	0.7
IMPLEMENTATION: Unit Maint./Depot Team ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 FY 1997: FY 1999: FY 1999: FY 1997: FY 1999: FY 1999: FY 1999: FY 1999: FY 1999: FY 1999: FY 1997: FY 1999: FY 1999: FY 1997: FY 1999: FY 1999: FY 1997: FY 1999: FY 1999: FY 1999: FY 1997: FY 1999: FY 1999: FY 1999: FY 1997: FY 1999: FY 19	Total Procurement Cost		1.9		0.2		0.2											-	8,		4.1
5; FY 1997; FY 1998; FY 1999; FY 1999; FY 1909;	IETHOD OF IMPLEMENTATION:	Unit Mai	int./Dep	ot Team		DMINIS	TRATI	/E LEAD	TIME:			unths	E	ODUCT	ION LE	ADTIME		Mont	SL		
	ontract Dates: elivery Date:	IL II	Y 1997	,			- u	Y 1998: V 1998:					£ 2	1999:							



FY 1995	Installation Schedule:		onute	d Wa	ter Ra	ation	Heate	Mounted Water Ration Heater (MWRH) 1		-95-0	-92-05-4426	9					Date	Φ.		Februa	February 1997				
R Prior 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2		FY 1996		Ε¥	1997			FY 1	866			FY 15	666			FY 2000	0			=Y 200	_				
8 Prior 17 210 210 210 210 210 14 8 Prior 188 188 188 188 188 188 188 187 Fry 2000 Fry 2001 Fry 2002 Fry 2004 Fry 2004 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3		& Prior		C)	(C)	41	-	C)	(C)	41	-		ଠା	41	₩							ect i			입
R Prior 17 210 210 210 210 210 210 14 R Prior 168 186 187 187 186 188 187 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Inputs																								
8 Prior 188 187 187 188 188 187 187 188 188 187 187	FY 1996 & Prior	17	210	210	210					14															
8 PHor 188 187 167 188 188 187 187 188 188 187 187 188 188	FY 1997																								
R Prior 188 187 187 188 188 187 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 1998																								
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FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3	Y 1997																								
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1	Y 1998																								
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 3 4 1 1 2 3 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3	Y 1999																								
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 1 3 4 1 1 2 1 3 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1				FY 200	0			FY 200			11,	=Y 2002	O.		ш	Y 2003			균	2004			7	2005	
y 2000 Y 2001 Y 2002 Y 2002 Y 2003 Y 2000 Y 2000 Y 2001 Y 2000 Y 2000 Y 2000 S 2001 S 2003 S 2004 S 2005 S 2005 S 2006 S 2006 S 2007 S 2008 S			-	0		4	-	N		4	-	N			-	8	က	4	-	8	ဗ	4	-	2	
Y 2000 Y 2001 Y 2002 Y 2003 Y 2000 Y 2000 Y 2000 Y 2000 Y 2001 Y 2002 S 2003 S 2003 S 2004 S 2005 S	puts																								
Y 2002 Y 2002 Y 2003 Utputs Y 2000 Y 2001 Y 2001 Stablation Less Than \$0.1M.	Y 2000																								
Y 2002 Y 2003 utputs Y 2000 Y 2001 Y 2002 Y 2003 emarks: stallation Less Than \$0.1M.	Y 2001																								
Y 2003 utputs Y 2000 Y 2001 Y 2002 Y 2003 emarks: stallation Less Than \$0.1M.	Y 2002																								
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Y 2003 emarks: stallation Less Than \$0.1M.	Y 2002																								
emarks: stallation Less Than \$0.1M.	Y 2003																								
istallation Less Than \$0.1M.	emarks:																								
	nstallation Less Th	lan \$0.1M																							

	INDIVIDUAL MODIFICATION	Date February 1997	
MODIFICATION TITLE: Prior Year MOD Kit Applications N/A	Applications N/A		
MODELS OF SYSTEMS AFFECTED: M1 = 355; IPM1:	M1 = 355; IPM1 = 892; M1A1 = 4351 and M1A2 = 1079	TOTAL ROMT = 6847ea	
DESCRIPTION / JUSTIFICATION:			
Continuing effort to install / apply modification ki executed within O&MA [P7M].	kits procured during or before FY90. This e	This effort was previously budgeted and	
USER PRIORITY: ap1 through ap24 [Less ap	ap2, ap7, ap8, ap10 and ap 12]		
			-

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	N/A	V/Z	
Critical Design Review:	N/A	N/A	
Contractor Test and Evaluation:	N/A	N/A	
Development Test and Evaluation:	N/A	N/A	
Inital Operational Test and Evaluation:	N/A	N/A	
IPR Production Decision	N/A	N/A	
TDP Available:	A/N	N/ A	
			·

Exhibit P-3a Individua

					ONI	VIDUAL	MODIF	INDIVIDUAL MODIFICATION	z						Date		Febr	February 1997	
MODIFICATION TITLE (Cont):		Д	Prior Year MO	ar MC	D Kit Applications N/A	Applica	ations	N/A											
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966																	
	and Prior	Prior	FY 1997	266	FY 1998	98	FY 1999	66	FY 2000	00	FY 2001	01	FY 2002	02	FY 2003		TC	TOTAL	AL
L	ð	€9	ਰੈ	69	ਣੇ	69	δ	69	δ	69	Q.	€9	ਣੇ	69	\$ Ap	Đ Đ	€	Off	69
Kit Quantity Installation Kits Installation Kits Nonrecurring Equipment Equipment Nonrecurring Equipment Nonrecurring Equipment Change Orders Data Training Equipment Support Equipment Charles FY 1996 & Prior Eqpt - 6847 FY 1997 Eqpt Kits FY 1999 Eqpt Kits FY 1999 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits	6408	65.0		c) 4.														6847	67.4
Total Installation Cost	6408	65.0	439	2.4		1												6847	67.4
Total Procurement Cost		65.0		2.4									H						67.4
METHOD OF IMPLEMENTATION: Depot Teams Contract Dates: PY 199	f: Depot T	Teams FY 1997: FY 1997:	و. و. ا		ADMINISTRATIVE LEADTIME: FY 1998: FY 1998:	TRATIV F	IVE LEAD FY 1998: FY 1998:	OTIME:	_	N/A Months	onths	<u>т</u> г	PRODUC FY 1999: FY 1999:	TION	PRODUCTION LEADTIME: FY 1999: FY 1999:		N/A Months		

Reptor 6408 147 146 146 FY2000 FY2001 FY2002 FY2002 FY2003 FY2004 FY2005 FY2006 FY2006	1 2 3 4 1 3 4 1 3 3 4 3 3	Installation Schedule: P	Prior Year MOD Kit Applications N/A	ear M	OD K	it Ap	plicat	ons A	N/									Date			February 1997	1997			
8 Prior 6608 147 146 146 FY2000 FY2001 FY2001 FY2002 FY2003 FY2003 FY2004 FY2005	8 Prior 6408 147 146 146 FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 14 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 3 4 3 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3	FY 199	co Co	Ŧ	1997			Ŧ	1998			F	1999			FY 2	0000			FY	2001				
8 Prior 6408 147 146 146 8 Prior 6408 147 146 146 1 2 3 4 1 3 4 1 3	8 Prior 6847 8 Prior 6408 147 146 146 1 2 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4 3	& Prio		CVI	(C)	41		CVI		41	-	N	ന	4		N	ო	4	-	N	m				_
8 Prior 6847 8 Prior 6408 147 146 146 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	8 Prior 6608 147 146 146 8 Prior 6408 147 146 146 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 3 3 4 1 3 3 4 1 3 3 4 1 3 3 4	Inputs													ı		i	i	1	•		1			7
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INDIVIDUAL MODIFICATION		Date Febru	February 1997
MODIFICATION TITLE: 2nd Gen Forward Looking Infra-Red (2GFLIR) 1-96-05-4504	96-05-4504		
MODELS OF SYSTEMS AFFECTED: $M1 = 0$; $IPM1 = 0$; $M1A1 = 0$; $M1A2 = 617$			
DESCRIPTION / JUSTIFICATION:			
<u></u>	sed improvement to the Migned to significantly increases	11A2 Commander's Indeparate of the capabilities of the identity, potential terrotes	endent nese sub -
systems. The new capabilities will greatly improve the tain crews ability to detect, recognize and identify potential targets during the day, night or through smoke, fog or other battlefield obscurants.	נס מפופרי, ופנטטווובפ מומ	מפחוווץ איניפווומן נמושפים כ	
USER PRIORITY # 3			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
Examples Preliminary Design Review:	PLANNED	ACCOMPLISHED	
Critical Design Review:			
Contractor Test and Evaluation:			
Development Test and Evaluation:			
Inital Operational Test and Evaluation:			
IPR Production Decision			
TDP Available:			



Inputs															
FY 1996 & Prior															,
FY 1997															
FY 1998															-
FY 1999															-
Outputs															
FY 1996 & Prior															
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FY 2002					8	18	18	18	8						64
FY 2003								-	16 2	28 28	28		415		515
Outputs															
FY 2000	-	_													N
FY 2001		0,	6	6	6										36
FY 2002						91	16	16	16						64
FY 2003									2	25 25	25	25	415	*	515
Remarks:	* Includes FY05 & Out qty's														

Total

41

February 1997 FY 2001

Date

(C) FY 1998

Installation Schedule: 2nd Gen Forward Looking Infra-Red (2GFLIR) 1-96-05-4504

& Prior 1 FY 1996

Inputs

	INDIVIDUAL MODIFICATION	Date	Cohman 1007	Γ
MODIFICATION TITLE:	System Enhancement Package (SEP) 1-96-05-4505		1901 (BOLINAL) 1901	
MODELS OF SYSTEMS AFFECTED:	M1 = 0; IPM1 = 0; M1A1 = 0; M1A2 = 617			
DESCRIPTION / JUSTIFICATION:				

The System Enhancemetn Package [SEP] consists of M1A2 Hardware & Software changes which support the US Army's Digitization The upgrade also provides the future growth without significant changes to the vehicle architecture allowing for insertion of technology forecast to mature through 2003. These changes are designed to be exportable to other Abrams platforms, meet Army requirements for joint interoperability with Combined Arms Command and Control Systems and maximize compatibility / commonality with other Ground Combat Systems. of the Battlefield effort. This effort upgrades the M1A2 electronics with improved processors, increased memory and Software partitioning necessary for the M1A2 to operate in the Army's common operating environment.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
Examples	PLANNED	ACCOMPLISHED	
Preliminary Design Review:	3096	3096	
Critical Design Review:	1097	1097	
Contractor Test and Evaluation:	2097		
Development Test and Evaluation:	4Q97		
Inital Operational Test and Evaluation:	2098		
IPR Production Decision	3098		
TDP Available:	4Q98		

cation

MODIFICATION TITLE (Cont):	S	System Enhancement Package (SEP) 1-96-05-4505	ancem	ent Pa	ckage	(SEP)	1-96-C)5-450	35								
FINANCIAL PLAN: (\$ in Millions)	FV 1996												9 1				
	and Prior	FY 1997	FΥ	FY 1998	FY1	FY 1999	FY 2000	000	FY 2001	10	FY 2002		FY 2003	-	<u>5</u>	-	TOTAL
	Offy \$	OJ.	ð	69	ਰੈ	€9	È	49	δ	69	Oty \$	ğ	\$	Q.	У \$	Q.	>
RDT&E PROCUREMENT Kit Quantity							N		98		64		85	4	430		617
Installation Kits Installation Kits Nonrecurring									.							,	
Equipment Sonrecurring								4.		19.7	ਲੱ 	35.8	4	47.6	52	254.1	
Engineering Change Orders		-															
Training Equipment																	
Support Equipment																-	
Other Interim Contractor Support																	
																	
Installation of Hardware		-											· · · · · · · · · · · · · · · · · · ·			_	
FY 1996 & Prior Eqpt Kits										-							
FY 1997 Eqpt Kits FY 1998 Eqpt Kits		±1				_					-						
FY 1999 Eqpt Kits													··· -		•		
FY 2000 Eqpt Kits FY 2001 Eqpt Kits						•									-		*****
FY 2002 Eqpt Kits																	
FY 2003 Eqpt Kits (EVTC) Fant (xx kits)																	
Total Installation Cost										T		-				+	+
Total Procurement Cost								1.2		19.7	36	35.8	4	47.6	25	254.1	358.4
METHOD OF IMPLEMENTATION: Prime Contractor will Install	Prime Contrac	tor will Install	ADMIN	ADMINISTRATIVE LEADTIME:	IVE LEA	DTIME:		9	Months	а.	PRODUCTION LEADTIME:	ON LEA	NOTIME	9	Months	ths	
Contract Dates: Delivery Date:	FY 1997: FY 1997:	~ ~			FY 1998: FY 1998:					u. U.	FY 1999: FY 1999:						

	FY 1996		FY 1997	266			-	V 400				200													
							-	FY 1998	r			FY 1999	e e			FY 2000	00			F	FY 2001				
	& Prior	\dashv	21	വ	41	-		C	(C)	41		CII	(2)	41	-	C)	m	4	-	N	n	4			Total
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FY 1996 & Prior																									
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FY 2002														80	18	18	18	N							64
FY 2003																		16	28	28	3 28	80		415	515
Outputs																									
FY 2000										_															
FY 2001											6	6	6	o				,							36
FY 2002															16	16	16	16							64
FY 2003																			25	25	25	5 25		415	515
Remarks:			Includes FY05 & Out atv's	FY0	5 & C	Jut at	S,A																		

MODELS OF SYSTEMS AFFECTED: M1 = 0; M1A1 = 0; M1A1 = 0; M1A2 = 1079 MODELS OF SYSTEMS AFFECTED: M1 = 0; M1A1 = 0; M1A1 = 0; M1A2 = 1079 MODELS OF SYSTEMS AFFECTED: M1 = 0; M1A1 = 0; M1A1 = 0; M1A2 = 1079 DESCRIPTION / JUSTIFICATION: Embedded Battle Command [EBC] is a part of Horizontal Battlefield Digitization [HBD]. It is an annual software "Drop" into each fielded M1A2 tank. There is no hardware associated with this modification. The purpose of HBD is to assure that all M1A2s have Up - to - Date and identical computer sfoftware with the latest State - of - the - Art changes installed on a regular basis. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Contractor Test and Evaluation: Contractor Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: Contractor Test and Evaluation: CORRECTOR OF STATUS / MAJOR DEVELOPMENT MILESTONES: COMBEST DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Contractor Test and Evaluation: CORRECTOR OF STATUS / MAJOR DEVELOPMENT MILESTONES: COMBEST DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOPMENT MILESTONES: CONTROL OF STATUS / MAJOR DEVELOP		INDIVIDUAL MODIFICATION	Date	le February 1997
MODELS OF SYSTEMS AFFECTED: M1 = 0; IPM1 = 0; M1A2 = 1079 DESCRIPTION JUSTIFICATION: Embedded Battle Command [EBC] is a part of Horizontal Battlefield Digitization [HBD]. It is an annual software "Drop" into each fielded M1A2 tank. There is no hardware associated with this modification. The purpose of HBD is to assure that all M1A2's have Up- to - Date and identical computer sloftware with the latest State - of - the - Art changes installed on a regular basis. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Preliminary Design Review: Contractor Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: TOP Available: 2098 TOP Available: 2089	MODIFICATION TITLE:			
DESCRIPTION / JUSTIFICATION: Embedded Battle Command [EBC] is a part of Horizontal Battlefield Digitization [HBD]. It is an annual software "Drop" into each fielded MIA2 tank. There is no hardware associated with this modification. The purpose of HBD is to assure that all MIA2's have Up - to - Date and identical computer sfoftware with the latest State - of - the - Art changes installed on a regular basis. EVENTIONS FROM TO BE VELOPMENT MILESTONES: EVENTIONS FROM TO BE VELOPMENT MILESTONES: CONTractor Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: ACCOMPLISHED 4087 ACCOMPLISHED 4087 ACCOMPLISHED 4087 ACCOMPLISHED 4087 ACCOMPLISHED 4089 TOP Availables:	MODELS OF SYSTEMS AFFECTED:	M1 = 0; IPM1 =		
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Preliminary Design Review: Contractor Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: Development Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: Contractor Test and Evaluation: Contractor Test and Evaluation: Development Test and Evaluation: Contractor Test and Contractor Test and Contractor Test and MINAZY An				
fielded M1A2 tank. There is no hardware associated with this modification. The purpose of HBD is to assure that all M1A2's have Up - to - Date and identical computer sfoftware with the latest State - of - the - Art changes installed on a regular basis. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Examples Freliminary Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Intial Operational Desison TDP Available: TDP Available: 2099 2099	Embedded Battle Comman	d [EBC] is a part of Horizontal Battlefield Digitiz	zation [HBD]. It is an annual	software "Drop" into each
2Q97 3Q97 4Q97 2Q98 3Q98 2Q99	fielded M1A2 tank. There Up - to - Date and identical	is no hardware associated with this modification computer sfoftware with the latest State - of - the	The purpose of HBD is to Art changes installed on a re-	assure that all M1A2's have egular basis.
PLANNED 2Q97 3Q97 4Q97 2Q98 3Q98				
2Q97 3Q97 4Q97 2Q98 3Q98 4Q98				
Preliminary Design Review: 2Q97 Critical Design Review: 3Q97 Contractor Test and Evaluation: 4Q97 Development Test and Evaluation: 2Q98 Inital Operational Test and Evaluation: 3Q98 IPR Production Decision 4Q98 TDP Available: 2Q99	DEVELOPMENT STATUS / MAJOR D Examples	DEVELOPMENT MILESTONES:		OMPLISHED
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and Evaluation: st and Evaluation: Test and Evaluation: Decision	Critical Design Review:		3Q97	
st and Evaluation: Test and Evaluation: Decision	Contractor Test and Ev	raluation:	40,97	
Test and Evaluation: Jecision	Development Test and	Evaluation:	20,98	
Decision	Inital Operational Test a	and Evaluation:	30,98	
	IPR Production Decision	us us	4098	
	TDP Available:		2099	



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Embedded Battle Command 1-96-05-4516	966	co)															-	ים											the no	
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Battl	FY 1997	(C)															000	V											ery or	
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	FY 1996	& Prior																											There	
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Installation Schedule:				FY 1996 & Prior						ſ	FY 1996 & Prior																		*	
stallatic			Inputs	1996	FY 1997	EV 1008	0661	FY 1999	Outnite	-	1996	FY 1997	FY 1998	000	FY 1999				Inputs	FY 2000	FY 2001	FY 2002	FY 2003	Outputs	FY 2000	FY 2001	FY 2002	FY 2003	Remarks:	

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	External Auxiliary Power Unit (EAPU) 1-85-05-4057		
MODELS OF SYSTEMS AFFECTED:	M1 = 0 ea., IPM1 = 0 ea., M1A1 = 1500 ea., M1A2 = 0 ea., Total = 1500 ea.		
DESCRIPTION / JUSTIFICATION:			

The current use of the Abrams Tank during stationary Tank night defensive positions, or Silent Watch Mode requires frequent, long duration idling greatly reduced fuel usage, and without main engine wear. The External Auxiliary Power Unit (EAPU) continuously delivers 2 KW of power at 28 Volts DC. It will be mounted in the left side of the turret bustle rack and will be fully integrated with the tank electrical system. The EAPU has its of the AGT-1500 main vehicle engine in order that electricity be available. This modification will provide power for electrical requirements at own fuel supply and can provide power for 10 to 12 hours on one tank-full of diesel fuel.

ENT STATUS, Preliminary Critical Desi Contractor 1 Developmer Inital Operat IPR Product	ENT CTATILS / MA IOD DEVEL OBJECT AND POTONICS.	Examples ACCOMPLISHED ACCOMPLISHED	Preliminary Design Review:	Critical Design Review:	Contractor Test and Evaluation:	Development Test and Evaluation:	Inital Operational Test and Evaluation:	IPR Production Decision	TDP Available: N/A *
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Re - Buy of an item last procured in FY92





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	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	External Auxiliary Power Unit (EAPU) Upgrade TBD2		
MODELS OF SYSTEMS AFFECTED:	M1 = 0; IPM1 = 0; M1A1 = 1500; M1A2 = 0		

This modification is the Upgrade of 1500ea External Auxiliary Power Units (EAPU's) originally procurred / fielded in FY91 / 93. The upgrade will replace the 12 volt Starter with a 24 volt starter; add an improved voltage regulator; add a NATO receptacle and remove the 24 volt Battery. These changes will increase the reliability and durability of the existing EAPU's.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		
Examples	PLANNED	ACCOMPLISHED
Preliminary Design Review:	3Q95	3095
Critical Design Review:	1096	1096
Contractor Test and Evaluation:	2096	2096
Development Test and Evaluation:	N/A	N/A
Inital Operational Test and Evaluation:	4096	4096
IPR Production Decision	4096	4096
TDP Available:	2Q97	



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	m	BUDGET ITEM JUSTIR	M JUSTIFIC	FICATION SHEET	i.		DATE	Februa	February 1997		
APPROPRIATION / BUDGET ACTIVITY	YTIVITY				P-1 ITEM NOMENCLATURE	LATURE					
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Ve	O CMBT VEHS /Trac	cked Combat Vehicles	Ø			•	ABRAMS UPGRADE PROGRAM (GA0750)	PROGRAM (GA075	(0)	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FV 2001	EV 2002	EV 2003	To Complete	-
QUANTITY	206	100	120	120	120	120	65	30	30	elo compilere	ooo
COST (in millions)	790.1	267.9	204.8	328.6	420.3	402.3	346.8	164.3	268.0	7637	3645.0
Initial Spares (in millions)	4.3	16.0	9.3	13.9	10.1	10.3	11.3	18.8	19.1	35.0	148.2
Total (in millions)	794.4	284.0	214.1	342.6	430.4	412.6	358.1	183.1	287.0	487.7	3794.0
Unit Cost (in millions)	3.9	2.8	1.8	2.9	3.6	3.4	3.9	1.9	90	+ 0	9.6
							210	00	0:0		0.0

Improved Commander's Weapon Station (ICWS), Position Navigation (POS/NAV) equipment, Radio Interface Unit (RIU), Core Architecture, D.U. Armor, DESCRIPTION: The Abrams Tank Upgrade Program supports the Department of Army vision for the future. The Upgrade Program will reconfigure M1 Tanks to the M1A2 configuration making it a more survivable and lethal tank. This includes the Commander's Independent Thermal Viewer (CITV), 120mm Gun, and Nuclear, Biological and Chemical (NBC) protection. In FY98 2nd Generation Forward Looking Infrared (FLIR) and vehicle core electronic upgrades will be cut into production.

JUSTIFICATION: The Upgrade Program will modernize the U.S. Army's armor force to enhance the combat effectiveness of the Abrams Tank Fleet and maintain the key elements of the tank industrial base.

PROGRAM SUMMARY

	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	TO COMPLETE	TOTAL PROG
Weapon Sys Cost Less Adv Proc PY Cur Year Prog Plus Adv Cur Year Total Cur Year	449.687 181.773 267.914 297.218 565.132	502.004 297.218 204.786 259.086 463.872	587.714 259.086 328.628 266.228 594.856	686.521 266.228 420.293 270.691 690.984	673.007 270.691 402.316 268.407 670.723	615.190 268.407 346.783 158.481 505.264	322.816 158.481 164.335 128.017 292.352	395.974 128.017 267.957 89.310 357.267	620.767 168.081 452.686 78.771	4853.680 1997.982 2855.698 1816.209 4671.907

1997		UnitCost	\$000	335	66	274	7	13		36	100	91	2	6								3	297		5721	
ATE February 1997	FY 99		Each §	120	120	120	240	120	18720	09	120	120	120	120									240		120	į
E D. DATE	E		H	323581 40185	2854	32840	1573		5999 1		12036	682	639	1114	5959	60420	2552	870	6002	1259	643	12533	58958 71238	1050 29404	686521	266228 420293 270691 690984
IUFACTURER NAM leral Dynamics La Sustem (GDI S)	2	TotalCost	000\$.,		(9)						(Ô. I	2.			9								N		
C. MANUFACTURER NAME General Dynamics Land Sustan (GD) c)	DIGAC	UnitCost	\$000	2475 325		267	9	308		38	98	Ψ1	- 4,	0,								i	1659		4898	
	FY 98	Oth	Each	120	220	120	240	120	18720	9940	120	120	120	120								,	20 2		120	
WEAPON ABHAMS UPGRADE PROGRAM (GA0750)		TotalCost	\$000	296947 39292	6921 2586	31996	1533	36970	5845 1458	2111	11726	665	625	1085	5835	43379	2499	852	5878	1233	630	12271	16586	1059	587714	259086 328628 266228 594856
N IS UPGRADE I		UnitCost	\$000	2421 289	30	260	9	328		34	95	ı cı	. ro	O											4183	
B. WEAPON ABRAMS	FY 97	Qty	Each	120	120	120	240	120	18720	9040	120	120	120	120											120	
L. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		TotalCost	\$000	290478 35227	7170	31183	1494	39302	5696	2057	11429	648	612	1058	5715	34393	2448	835	5757	1207	617	12019			502004	297218 204786 259086 463872
ENT OF WPNS & TRKD Charles		UnitCost	000\$	2155 367	23 6	250	7	327		42	117	က်	ດເດ	10											4497	
NT OF WE	FY 96	Qfy	Each	98	200	9 8	200	100	15600	2500	100	9 5	3 8	09											100	
A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR Tracked Combat VA		TotalCost	\$000	215534 29335	5850	25017	1382	32696	3338	2086	11701	540	499	570	4671	83732	2401	819	5646	1184	504	10417			449687	181773 267914 297218 565132
	0	8		∢						_							_			-100						
WTCV Cost Analysis	WTCV	Cost Elements			3. H/IEU 4. Engine (DECII)			_	8. Track			12. Drivers Night Viewer	13. Basic Issue Items 14. MII STRIPS / RIK		Special Tools / Test Sets	7. Contract Engineering			•	22. Quality Support			26. II Gen FLIH (A Kit) FPD 102 27. II Gen FLIR (B Kit) FPDT01		Meanon Sive Cost	Veapor Sys Cost Less Adv Proc PY Cur Year Prog Plus Adv Cur Yr Tot Cur Year

PROCUREMENT OF WHISE 3 TRED CANTER VEHISE 1 / Transled Comman Vehicles PROCUREMENT OF WHISE 3 TRED CANTER COMMENT NET AND TYPE	TACON		C. P-1 ITEM N	JOMENIC: AT				Leornaly 1887
UNE TERM FEROL, VEAR CONTRACT IN A MONTANGE LONG A MONTANGE	TACON			CINCINCIAL C	JR.			
Dec. of August Dec.	TACON	-		ABRAMS	UPGRADE PROG	BRAM (GAC	(052)	
SSPEPMAG(1) TACOM-Warren July 6 Cot-96 Tacometer Cot-96 Ta		AWARD DATE	DATE OF FIRST	ΔIY	UNIT COST	SPECS	SPEC	IF YES WIA
Control Cont			DELIVERY	Each	\$000	MON	REQ'D	
TACOM-Warren TACO		-						
The control of the Lord Line of the Lo		96-Inc	96-150	9	2155		ž	
The control of the Lord System, Marray Marra		Dec-96	Aug-97	120	2421		2	
The company The company		Mar-99	Aug-98	120	2475		2 2	
Introduction Introduction Interest Introduction Interest		3	2	3	603		2	
UTCO/4 SS/CPFF DOE/3 Mar-96 Apr-96 as N/A								
UTCO/4 SS/CPFF DOE/3 Mar-96 Feb-97 122 289 N/A		Mar-95	Apr-96	80	367		N/A	
UTCO/4 SS/CPFF DOE /3 Doe -96 Feb-96 121 325 N/A		Mar-96	Feb-97	122	289		N/A	
UTCO/4 SS/CPFF DOE/3 Mar-99 Feb-99 120 335 N/A		Dec-96	Feb-98	121	325		A/A	
GDLS/1 SS/FFP TACOM-Warren/5 Apr-96 C200 29 Yes		Mar-98	Feb-99	120	335		N/A	
GDLS/1 SS/FFP TACOM-Warren/5 Apr-96 Apr-96 Con								
Communication Communicatio	TACOM-Morran/E	20,700	Anyoe	0	Č			
SS/FFP TACOM-Warren Mar-97 Feb-98 220 31 Yes	TACOM ACAI A/6	CE-Idy	בסליולה	002	23		2 :	
SS/FFP TACOM-Warren Feb-95 Tacom-Warren Feb-95 Tacom-Warren Mar-97 Tacom-Warren Mar-97 Tacom-Warren Mar-96 Tacom-Warren Mar-96 Tacom-Warren Mar-96 Tacom-Warren Mar-96 Tacom-Warren Mar-97 Tacom-Warren Mar-97 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren Tacom-Warren Mar-98 Tacom-Warren	STATE OF L	May-90	Len-a/	240	30	_	ş	
AlliedSignal/7 SS/FFP TACOM-Warren Feb-95 Apr-96 100 23 Yes AlliedSignal/7 OPTION TACOM-warren Mar-96 Feb-97 120 21 Yes AlliedSignal/7 OPTION TACOM-warren Mar-98 Feb-99 120 22 Yes Armor production leads tank production 3. Department of Energy 4. Lockheed Idaho Technologies Company, Idaho Falls, Idaho 5. Awarded to GDLS as part of the Long Lead Material Contract.	I ACOM-ACALA/6	Mar-97	Feb-98	220	31		g	
AlliedSignal/7							••••	
AlliedSignal/7 OPTION TACOM-Warren Mar-96 Feb-97 120 21 Yes AlliedSignal/7 SS/FFP TACOM-Warren Mar-98 Feb-99 120 22 Yes AlliedSignal/7 OPTION TACOM-Warren Mar-98 Feb-99 120 22 Yes TACOM-Warren Mar-98 Feb-99 120 22 Yes TACOM-Warren Mar-98 Feb-99 120 22 Yes TACOM-Warren Mar-98 Feb-99 120 22 Yes TACOM-Warren of Energy 3. Department of Energy 4. Lockheed Idaho Technologies Company, Idaho Falis, Idaho 5. Awarded to GDLS as part of the Long Lead Material Contract.	TACOM-Warren	Feb-95	Anr-96	100	00		Ž	
AllledSignal/7 SS/FFP TACOM-Warren Mar-97 Feb-98 120 22 Yes AllledSignal/7 OPTION TACOM-Warren Mar-97 Feb-99 120 22 Yes 1. General Dynamics Land System, Warren, MI 2. Armor production leads tank production 3. Department of Energy 4. Lockheed idaho Technologies Company, Idaho Falls, Idaho 5. Awarded to GDLS as part of the Long Lead Material Contract.	TACOM-Warren	Mar-96	Feb-97	120	10	_	2 2	
KS: 1. General Dynamics Land System, Warren, MI 2. Armor production leads tank production 3. Department of Energy 4. Lockheed idaho Technologies Company, idaho Falls, idaho 5. Awarded to GDLS as part of the Long Lead Material Contract.	TACOM-Warren	Mar-97	Feb-98	120	200	·	2 2	
1. General Dynamics Land System, Warren, MI 2. Armor production leads tank production 3. Department of Energy 4. Lockheed Idaho Technologies Company, Idaho Falls, Idaho 5. Award of DLS as part of the Long Lead Material Contract.	TACOM-Warren		Feb-99	120	22		2 2	
÷. ળ છ 4 છ ¢		Ha		70-70- U.S. (!	
—. ળાલ્4 ભાવ			·					
o. Awarded to GDLS on a separate competitive contract. 7. AlliedSignal/Control & Accessories, Tucson, AZ								





The Control of the Part Tracked Cometa Varieties Control of the Part Tracked Cometa Varieties Control of the Part Tracked Cometa Varieties Control of the Part Tracked Cometa Varieties Control of the Part Tracked Cometa Varieties Control of the Part Tracked Cometa Varieties Tracked Varieties	BUD	BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	ORY AND PLANNIN	IG EXHIBIT (P-5A)					Fe	February 1997	997
PROCUPIEMENT OF WIPNS A TRICO CMBT VEHS / 1 / Tracked Combat Vahicles CONTRACTIOR MOTOR CONTRACTIOR CONTRACTIOR MOTOR	B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	OMENCLATU	RE			
March Rechards	PROCUREME	ENT OF WPNS & TRKD CMBT VEHS / 1 /	Tracked Combat Vehicles				ABRAMS	JPGRADE PROGR	RAM (GAO)	(09/	
Authorisons Authorisons	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD	CONTRACTED BY	AWARD DATE	DATE OF FIRST	ΔIΔ	UNIT COST	-	Name and Address of the	IF YES W/A
Allison Trans/1 OPTION TACOM-Warren Apr-66 Apr-96 100 250 Yes Allison Trans/1 OPTION TACOM-Warren Dec-95 Feb-97 120 260 Yes Allison Trans/1 OPTION TACOM-Warren Dec-97 Feb-97 120 267 Yes Allison Trans/1 OPTION TACOM-Warren Dec-97 Feb-97 120 277 Yes Loc Part/2 OPTION TACOM-Warren Mar-97 Feb-99 120 277 Yes Loc Part/2 OPTION TACOM-Warren Mar-97 Feb-99 240 7 Yes Loc Part/2 OPTION TACOM-Warren Mar-97 Feb-99 240 7 Yes Loc Part/2 OPTION TACOM-Warren Mar-97 Feb-99 240 7 Yes Hughes/Various Various TACOM-ACALA Various Feb-99 120 13 Yes Hughes/Various Various TACOM-ACALA Various Feb-99 120 13 Yes Goodyear Trie & Rubber/4 OPTION TACOM-Warren Mar-96 Feb-97 120 13 Yes TBD OPTION TACOM-Warren Mar-98 Feb-97 120 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 120 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 120 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 120 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 120 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 120 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 120 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 18720 Yes TBD			AND TYPE			DELIVERY	Each	\$000	MON	REQ'D	
Allison Trans/1	5. Transmissions										
Allison Trans/1 SPFFP/OP TACOM-Warren Dec-95 Feb-99 120 260 Ves	FY 96	Allison Trans/1	OPTION	TACOM-Warren	Apr-95	Apr-96	100	250	Yes	2	
Allison Trans/1 SS/FFP/CP TACOM-Warren Feb-97 Feb-99 120 274 Yes	FY 97	Allison Trans/1	OPTION	TACOM-Warren	Dec-95	Feb-97	120	260	Yes	8	
Allison Trans/1	FY 98	Allison Trans/1	SS/FFP/CP	TACOM-Warren	Feb-97	Feb-98	120	267	Yes	8	
TACOM NICP	FY 99	Allison Trans/1	OPTION	TACOM-Warren	Dec-97	Feb-99	120	274	Yes	2	
TACOM NICP											
TACOM-Warren Mar-95 Feb-97 200 7 Yes	6. Final Drives								:		
Loc Perf2	FY 96	TACOM NICP	Requisition	TACOM-Warren	Mar-95	Apr-96	200	7	Yes	2	
Loc Perfiz Loc Perfiz TACOM-Warren Mar-96 Feb-99 240 7 Yes	FY 97	Loc Perf/2	C/FFP	TACOM-Warren	Nov-95	Feb-97	240	9	Yes	2	
Loc Perf2	FY 98	Loc Perf/2	OPTION	TACOM-Warren	Mar-97	Feb-98	240	9	Yes	8	
Hughes/Various Various TACOM-ACALA Various Peb-97 120 327 Ves Hughes/Various Various TACOM-ACALA Various Peb-97 120 308 Ves Hughes/Various Various TACOM-ACALA Various Peb-97 120 308 Ves Hughes/Various Various TACOM-ACALA Various Peb-99 120 13 Ves Hughes/Various Various TACOM-ACALA Various Peb-99 120 13 Ves Goodyear Tire & Rubber/4 OPTION TACOM-Warren TACOM	FY 99	Loc Perf/2	OPTION	TACOM-Warren	Mar-98	Feb-99	240	7	Yes	_S	
Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hughes/Various Hacom-AcALA Various Feb-98 120 13 Yes											
Hughes/Various Various TACOM-ACALA Various Apr-96 100 327 Ves Hughes/Various Various TACOM-ACALA Various Feb-97 120 308 Ves Hughes/Various Various TACOM-ACALA Various Feb-99 120 13 Ves Hughes/Various Various TACOM-ACALA Various Feb-99 120 13 Ves Goodyear Tire & Rubber/4 OPTION TACOM-Warren Nov-96 Feb-97 18720 Ves TBD	7. Fire Control/3										
Hughes/Various Various TACOM-ACALA Various Feb-97 120 308 Yes	FY 96	Hughes/Various	Various	TACOM-ACALA	Varions	Apr-96	100	327	Yes	S S	
Hughes/Various TACOM-ACALA Various Feb-96 120 13 Yes	FY 97	Hughes/Various	Various	TACOM-ACALA	Various	Feb-97	120	308	Yes	8	
ack Goodyear Tire & Rubber/4 C/FFP TACOM-Warren Feb-96 Feb-97 Feb-99 120 13 Yes TBD C/FFP TACOM-Warren Tre & Rubber/4 OPTION TACOM-Warren Mar-96 Feb-97 18720 Yes TBD C/FFP TACOM-Warren TACOM-Warren Mar-96 Feb-99 18720 Yes	FY 98	Hughes/Various	Various	TACOM-ACALA	Various	Feb-98	120	13	Yes	8	
ack Goodyear Tire & Rubber/4 C/FFP TACOM-Warren Feb-96 Apr-96 15600 Yes Goodyear Tire & Rubber/4 OPTION TACOM-Warren Mar-96 Feb-97 18720 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 18720 Yes	FY 99	Hughes/Various	Various	TACOM-ACALA	Various	Feb-99	120	13	Yes	2	
ack Goodyear Tire & Rubber/4 C/FFP TACOM-Warren Feb-96 Apr-96 15600 Yes Goodyear Tire & Rubber/4 OPTION TACOM-Warren Mar-96 Feb-97 18720 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 18720 Yes											
Goodyear Tire & Hubber/4	8. Track	:			00 1-1	0	0		,	1	
Goodyear Tire & Rubber/4	FY 96	Goodyear Tire & Rubber/4	C/FFP	I ACOM-warren	rep-96	Apr-96	15600		Yes	2	
TBD C/FFP TACOM-Warren Nov-96 Feb-98 18720 Yes TBD OPTION TACOM-Warren Mar-98 Feb-99 18720 Yes	FY 97	Goodyear Tire & Rubber/4	NOTTION	TACOM-Warren	Mar-96	rep-97	18720		Yes	2	
TBD OPTION TACOM-Warren Mar-98 Feb-99 18720 Yes	FY 98	TBD	C/FFP	TACOM-Warren	96-voN	Feb-98	18720		Yes	ž	
	FY 99	TBD	OPTION	TACOM-Warren	Mar-98	Feb-99	18720		Yes	ş	
0.00	4111100										

- Allison Transmission Div, GM Corp, Indianapolis, IN
 Loc Performance, Inc, Plymouth, Mi
 Hughes Aircraft, El Segundo, CA
 Goodyear Tire & Rubber Co., Akron, OH

	BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	ORY AND PLANNIN	G EXHIBIT (P-5A)					DATE Fe	February 1997	266
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	RE			
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles	Tracked Combat Vehicles				ABRAMS (ABRAMS UPGRADE PROGRAM (GA0750)	AAM (GAO	(20)	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD	CONTRACTED BY	AWARD DATE	DATE OF FIRST	νπο	UNITCOST	SPECS AVAIL	SPEC REV	F YES W/A
		AND TYPE			DELIVERY	Each	\$000	MOM	REQ'D	
9. Road Wheels										
FY 96	B&C Corp/1	Requirement Cntr/FFP	TACOM-Warren	Dec-95	Apr-96	3200		Yes	ş	
FY 97	B&C Corp/1	Requirement Cntr/FFP	TACOM-Warren	Mar-96	Feb-97	3840		Yes	2	
FY 98	B&C Corp/1	Requirement Cntr/FFP	TACOM-Warren	Dec-96	Feb-98	3840		Yes	2	
FY 99	B&C Corp/1	Requirement Cntr/FFP	TACOM-Warren	Mar-98	Feb-99	3840		Yes	8	
10 Gun Mounts/0										
EV 06	Ald	0/40	V.	100 011	Anros	C	*	200		
EV 03		C (30 July	Apr 30	000	42	SB :	2 :	
/6 11	Y.	7	AIA AIA	Mar-96	Lep-9/	09	34	Yes	2	
FY 98	RIA	WR	RIA	Mar-97	Feb-98	09	32	Yes	2 2	
FY 99	RIA	WR	RIA	Mar-98	Feb-99	09	36	Yes	8	
11. Gun										
FY 96	Watervllet	WR	Watervliet	Mar-95	Apr-96	100	117	Yes	8	
FY 97	Watervilet	WR	Watervliet	Apr-96	Feb-97	120	95	Yes	2º	
FY 98	Watervilet	WR	Watervliet	Mar-97	Feb-98	120	96	Yes	2°	
FY 99	Watervilet	WB	Watervilet	Mar-98	Feb-99	120	100	Yes	ž	
12. Drivers Night Viewer										
FY 96	CECOM NICP	Requisition	CECOM	Jul-95	Apr-96	100	ιΩ	Yes	8	
FY 97	CECOM NICP	Requisition	CECOM	96-unf	Feb-97	120	S	Yes	o _N	
FY 98	TBD	TBD	CECOM	Jul-97	Feb-98	120	9	Yes	2º	
FY 99	TBD	TBD	CECOM	36-Inc	Feb-99	120	9	Yes	8	
					,,,,,,,,,					
					-			١		

REMARKS:

B&C Corp, Barberton, OH
 RIA, Rock Island Arsenal, Rock Island, IL produces 50% of gun mounts.
 The remainder are procured with the GDLS contract.





Characterior Euclidean Contract Characterior Characterio	BUD	BUDGET PROCUREMENT HISTORY	RY AND PLANNIN	Y AND PLANNING EXHIBIT (P-5A)					DATE F	February 1997	, 266
STATE COUNTINGTOR AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND LOCATION AND L	B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	OMENCLATU	RE			
STATE CONTRACTOR AND LOCATION CONTRACT	PROCUREMI	ENT OF WPNS & TRKD CMBT VEHS / 1 / '	Tracked Combat Vehicles				ABRAMS	UPGRADE PROGE	RAM (GAO	(052	
SSTEP STATE STAT	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD	CONTRACTED BY	AWARD DATE	DATE OF FIRST	αпу	UNIT COST	SPECS	SPEC	F YES W/A
TACOM-ACALA WF TACOM-ACALA May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tacom-Acala May-96 Tab-96 Tab Tab-96 Tab			AND TYPE			DELIVERY	Each	\$000	MON	REO'D	
TACOM-ACALA WP TACOM-ACALA May-95 Feb-96 120 7 765 No	13. Basic Issue Items										
TACOM-ACALA WR TACOM-ACALA May-96 Feb-96 120 7	FY 96	TACOM-ACALA	WR	TACOM-ACALA	May-95	Apr-96	100	8		ž	
LSTRIPS/RIK	FY 97	TACOM-ACALA	WR	TACOM-ACALA	May-96	Feb-96	120	7		ž	
TACOM-ACALA WR TACOM-ACALA May-98 Feb-96 120 7 7 7 7 7 7 7 7 7	FY 98	TACOM-ACALA	WR	TACOM-ACALA	May-97	Feb-96	120	7		2	
STRIPS/RIK N/A	FY 99	TACOM-ACALA	WR	TACOM-ACALA	May-98	Feb-96	120	7		ટ્ટ	•
N/A REQN/WR TACOM-ACALA/CECOM Various Apr-96 100 5	14 MII STBIPS/BIK										
NIA REQNWR TACOM-ACALA/CECOM Various Feb-97 120 5 Ves No	FY 96	A/A	REGN/WR	TACOM-ACALA/CECOM	Various	Apr-96	100	S		2º	
N/A REQNWR TACOM-ACALA/CECOM Various Feb-96 120 5 Ves No	FY 97	N/A	REQN/WR	TACOM-ACALA/CECOM	Various	Feb-97	120	5		ž	
Syl Grumman /2	FY 98	N/A	REGNWR	TACOM-ACALA/CECOM	Various	Feb-98	120	S		ž	
San FLIR (A Kit) FPDT02 TBD TBD TBD TBD TBD TBD TBD TB	FY 99	N/A	REGNWR	TACOM-ACALA/CECOM	Various	Feb-99	120	5		£	
San FLIR (A Kt) FPDT02 TBD	10 VI 014										
Grumman/2 CFFP/Option CECOM May-96 Tab	13. VIG/1	0	C/GES/O	CECOM	Doc.05	Anr-06	S	-		2	
Gen FLIR (A Kit) FPDT02 TBD TBD TBD TBD TBD TBD TBD TB	FY 96/3	Grimman /2	C/FFP/Ontion	MOCHO STORY	Mav-96	Feb-97	8 62	<u> </u>		2 2	
Gen FLIR (A Kit) FPDT02 TBD TBD TBD TBD TBD TBD TBD TBD TBD TBD	16 - 1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Grumman/2	C/FFP/Option	CECOM	Apr-97	Feb-98	120	6		2	
Gen FLIR (A Kit) FPDT02 TBD TBD TBD TBD TBD TBD TBD TB	FY 99	Grumman/2	C/FFP/Option	CECOM	Apr-98	Feb-99	120	6		운	
TBD TBD TBD 10 1659 Yes Yes TBD TBD TBD 120 491 Yes Yes Yes Yes Yes Yes TBD TBD TBD TBD TBD TBD TBD TBD TBD TBD	COTCOD (N) A) OI IT AND II OC										
TBD TBD Oct-97 Apr-99 120 491 Yes Yes	20. 11 Gent Fran (A Nii) FFD 102 EV 98	TBD	TBD	TBD	Feb-97	Feb-99	10	1659		Yes	Apr-97
	FY 99	TBD	TBD	TBD	Oct-97	Apr-99	120	491		Yes	Apr-97
		Section C. colours									

VIS, Vehicular Intercommunication System.
 Grumman Aerospace Corp, Bethpage, NY
 40 VIS Components were previously procured in Phase I REMARKS:

EAR CONTRACTOR AND LOCATION TBD TBD TBD		BUDGET PROCUREMENT HISTORY		AND PLANNING EXHIBIT (P-5A)					DATE	Fahnian, 1007	
TBD TBD TBD TBD TBD TBD TBD TBD TBD TBD	B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	·		olualy 18	181
TBD TBD TBD TBD TBD TBD TBD TBD TBD TBD	PROCUREMENT OF	WPNS & TRKD CMBT VEHS / 1,	Tracked Combat Vehicles				ABRAMS U	ABRAMS UPGRADE PROGRAM (GA0750)	RAM (GA07	20)	
48D TBD TBD	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	SOOO \$	SPECS AVAIL NOW	S > C	IF YES WIA
		TBD	TBD TBD	TBD .	Feb-97 Oct-97	Peb-99 Apr-99	240	1002	Y es		Apr-97
REMARKS:										_	



FY 96/99 BUDGEL PHODUCTION SCHEDULE				1						במכל	לפרוסיים) ואירוסיטרו במחסים כאירוסיק	200			(D)	1000				-			00	1 Solutary 1997	100	I	ŀ	•
	-	TATTA	出海	PROC /	ACCEP.	BAI			Γ	Fiscal Year 96	Yea	196				-				Ī	Fiscal Year 97	Year	. 97				_	
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Exhibit P-21 Product

							P-1 ITEM NOMENCLATURE	NOME	VCLA1	URE	APDANC HECHANE DECORAL (CACTED)	000	200	0	// MAC	24075	-			Ď	DATE		ı,	Cohman 1007	1001			4.
FY 96 / 99 BUDGET PHODUCTION SCHEDULE	d	WELLOW.	72		ACCED	PA				Flac	Fiscal Vear 00	ar o					Ĺ			ľ	Fiscal Year 01	Yea	6	(m)		١	H	_
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COST ELEMENTS	ıια	Ā	m & >	Each	1 OCT	AS OF 1 OCT	< 0 ×	ΔШО	¬ ∢ Z	тшю	Σ < α	A G R	702 24>	704	< ⊃ @	ωшσ	00F	z o >	0 11 0	¬ < Z	Σ<α	4 G E	∑ ∢≻	¬ ⊃ Z	J L	∢ ⊃ ত	லயட	⊢ w œ
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	BNC	BUDGET ITEM JUST	TIFICATION SHEET	HEET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	YTIVITY			P-1 ITEM NOMENCLATURE	<u> </u>			
PROCUREM	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	3T VEHS /Tracked Combat	Vehicles			ABRAMS UPGRADE PROC	ABRAMS UPGRADE PROGRAM (Adv Proc) (GA0750)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (in millions)	297.2	259.1	266.2	270.7	268.4	158.5	128.0	89.3

DESCRIPTION: Advance procurement for long lead materials to support procurement for the Abrams Upgrade Program.

JUSTIFICATION: Without advance procurement funds, procurement of components, assemblies and raw materials to support procurement, long lead time would not be possible and would cause a break in production.

Budget Item Justil

WEAPON SYSTEM ADV	TEM ADVANCE	ANCE PROCUREMENT EXHIBIT (P-10)	EXHIBIT (P-10)		BUDGET YEAR 1 FOR FISCAL YEAR PROGRAM 1998	SCAL YEAR PROGRAM 1998
(PROCUREMENT OF		OF ADVANCE DESIGN AND MATIERIAL) (TOA, Dollars in Thousands)	D MATIERIAL)		рате	February 1997
Weapon System Type (Model/Series No.)		FIRST SYSTEM AWARD DATE	TE	FIRST SYSTEM COMPLETION DATE		INTERVAL BETWEEN
ABRAMS UPGRADE PROGRAM		MAR 99		AUG 99		SYSTEM COMPLETIONS (MONTHS)
Advance Procurement / Advance Funding items	Quantity	Date Contract Award Planned / Required	Delivery Date of First Equipment Required	Production Lead Time in Months (Adm / Prod) - Total	Unit Cost	Total Cost
1. Basic Vehicle 2. Amor 3. H/TEU 4. Engine (DECU) 5. Transmissions 6. Final Drives 7. Fire Control 8. Track 9. Road Wheels 10. Gun Mounts 11. Gun Mounts 12. Drivers Night Viewer 13. Provine Items 14. Busic Items 15. Amounts 16. Drivers Items 16. Amounts 17. Drivers Items 18. Drivers Items 19. Provine Items 19. Prov	120 120 120 120 18720 3840 60 60 120 120	Mar-98 Mar-98 Mar-98 Mar-98 Mar-98 Mar-98 Mar-98	Aug-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo Feb-99 16 Mo	18 MO 16 MO 16 MO 16 MO 16 MO 15 MO 16 MO 16 MO 16 MO 16 MO	989 83 13 99 99 99	200
13. Basic Issue itenis 14. MILSTRIPS / RIK 15. VIS 26. II Gen FLIR (A Kits) 27. II Gen FLIR (B Kits)	120 120 120 240	Various Apr-98 Oct-97 Oct-97	Feb-99 Feb-99 Feb-99 Feb-99		5 9 292 176	1 88 44
TOTAL:		·				266228
NARRATIVE DESCRIPTION * Delivery is required 6 months prior to tank delivery ** Production Lead Time includes the 6 months requirement for components prior to tank delivery PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.	s prior to tank delivites the 6 months (FAT) or other sc	ank delivery months requirement for components prior to tank delivery other special test requirements for new producers or othe	omponents prior ments for new p	to tank delivery roducers or othe	r factors.	

ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.

	(PROCUREMENT OF ADVA	ADVANCE DESIGN AND MATIEBLAL	IN MATIEDIAL)		1999	1999
	(TOA, Dollar	(TOA, Dollars in Thousands)	D WALLERIAL)		DATE	Exhause 4007
Weapon System Type (Model/Series No.) ABRAMS UPGRADE PROGRAM		FIRST SYSTEM AWARD DATE	ATE.	FIRST SYSTEM COMPLETION DATE	IION DATE	INTERVAL BETWEEN SYSTEM COMPLETIONS
Advance Procurement / Advance Funding Items	Quantity	Date Contract Award Planned (Recuired	Delivery Date of First Equipment	Production Lead Time in Months	Unit Cost	(MONTHS) Total Cost
1. Basic Vehicle 2. Armor 3. H/TEI	120	Various Mar-99	Aug-00 18 Mo Feb-00 16 Mo	18 Mo	1367 85	164006
4. Engine (DECU) 5. Transmissions 6. Final Drives	120	Mar-99 Dec-98	Feb-00 16 Mo Feb-00 20 Mo	16 Mo 20 Mo	22 27 <u>6</u>	6
7. Fire Control 8. Track	120	Various Mar-99		16 Mo	13	1587 1594 6052
o. noauwilees 10. Gun Mounts 11. Gun	3840 60 120	Mar-99 Mar-99	Feb-00 Feb-00	16 Mo 16 Mo 16 Mo	36	•
12. Drivers Night Viewer 13. Basic Issue Items 14. MILSTRIPS / RIK	120	May-99	Feb-00	13 Mo 15 Mo	9 / 1	
15. VIS 26. II Gen FLIR (A Kits) FPDT 27. II Gen FLIR (B Kits) FPDT	120	Apr-99 Oct-98	Feb-00 14 Mo Feb-00 22 Mo	14 Mo 22 Mo	122	
					7	1/662
TOTAL:						270691
NABRATIVE DESCRIPTION						

NARRATIVE DESCRIPTION
* Delivery is required 6 months prior to tank delivery

** Production Lead Time includes the 6 months requirement for components prior to tank delivery.
PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.
ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.

WEAPON SYSTEM AD	TEM ADVANCE	VANCE PROCUREMENT EXHIBIT (P-10a)	EXHIBIT (P-10a	(1)	PRIOR YEAR FOR FISCAL YEAR PROGRAM	YEAR PROGRAM
	DARISON OF RE	COMPANISON OF BEOLIEST TO EXECUTION	CITION			1996
	(TOA, Dollar	(TOA, Dollars in Thousands)	(1000)		DATE Fe	February 1997
Weapon System Type (Model/Series No.)		FIRST SYSTEM AWARD DATE	TE.	FIRST SYSTEM COMPLETION DATE		INTERVAL BETWEEN
ABRAMS UPGRADE PROGRAM		DEC 96		Aug 97		SYSTEM COMPLETIONS (MONTHS)
Advance Procurement / Advance Funding Items Requested / Actual	Quantity	Date Contract Award Required / Actual	Date Delivery of First Equipment Required / Actual	Production Lead Time in Months Total Requested (Adm/Prod) Actual (Adm/Prod)	Total Cost Requested	Actual Contract Cost
1. Basic Vehicle 2. Armor 3. H/TEU 4. Engline (DECU) 5. Transmissions 6. Final Drives 7. Fire Control 8. Track 9. Road Wheels 10. Gun Mounts 11. Gun 12. Drivers Night Viewer 13. Basic Issue Items 14. MILSTRIPS/RIK 15. VIS	120 120 120 120 120 18720 3840 60 120 120 Various	Various/Various Mar 96/Mar96 Mar 96/Mar 96 Mar 96/Nov 95 Mar 96/Nov 95 Various/Various Mar 96/Mar 96 Mar 96/Mar 96 Apr 96/Mar 96 Apr 96/Mar 96 Apr 96/May 96 Various/Various Apr 96/May 96	Aug-97 18 Mo Feb-97 15 Mo Feb-97 16 Mo Feb-97 16 Mo Feb-97 16 Mo Feb-97 16 Mo Feb-97 16 Mo Feb-97 16 Mo Feb-97 15 Mo Feb-97 15 Mo Feb-97 15 Mo Feb-97 15 Mo	4ug-97 18 Mo -eb-97 16 Mo -eb-97 16 Mo -eb-97 16 Mo -eb-97 16 Mo -eb-97 16 Mo -eb-97 16 Mo -eb-97 16 Mo -eb-97 16 Mo -eb-97 15 Mo -eb-97 15 Mo -eb-97 15 Mo	189546 7914 7152 2514 25921 1490 39204 5682 1417 2052 11400 646 804 421 1055	185528 7940 7152 2514 1488 1417 2052 11400 646 804 1055
NARRATIVE DESCRIPTION						

* Delivery is required 6 months prior to tank delivery

PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors. ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts. ** Production Lead Time includes the 6 months requirement for components prior to tank delivery.

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	COMPABISON OF DE	OF DECLIEST TO EVECITION	CACITION.			1997	
		A, Dollars in Thousands)	(NOLION)		DATE	February 1997	
Weapon System Type (Model/Series No.)		FIRST SYSTEM AWARD DATE	TE	FIRST SYSTEM COMPLETION DATE		INTERVAL BETWEEN	
ABRAMS UPGRADE PROGRAM	IRAM	МАНЭВ		Aug 98		SYSTEM COMPLETIONS (MONTHS)	
Advance Procurement / Advance Funding Items Requested / Actual	Quantity	Date Contract Award Required / Actual	Date Delivery of First Equipment Required / Actual	. Production Lead Time in Months Total Requested (Adm/Prod) Actual (Adm/Prod)	Total Cost Requested	Actual Contract Cost	
1. Basic Vehicle 2. Armor 3. H/TEU 4. Engine (DECU)	120 122 220 120 120	Various Mar 97/Dec 96 Mar-97 Mar-97	Aug-98 Feb-98 Feb-98	Aug-98 18 Mo Feb-98 16 Mo Feb-98 16 Mo	127697 9826 6870 2567		9310
o. Final Brives 7. Fire Control 8. Track 9. Road Wheels 10. Gun Mounts	Various 240 Various 18720 3840 60	reb-37 Mar-97 Various Mar 97/Dec 96 Mar 97/Dec 96	760-98 Feb-98 Feb-98 Feb-98 Feb-98	780-98 1 / MO 780-98 1 6 Mo 780-98 1 6 Mo 780-98 1 6 Mo 780-98 1 6 Mo	31757 31757 36693 3801 1447 2095		5682
	120 120 120 Various 120	Mar-97 Jul-97 May-97 Various Apr-97	Feb-98 Feb-98 Feb-98 Feb-98 Feb-98	16 Mo 13 Mo 14 Mo 15 Mo	11639 . 660 815 620 1077		
26. II Gen FLIR (A KIIs) FPDT 27. II Gen FLIR (B KIIs) FPDT	20	Feb-97 Feb-97	Feb-98 Feb-98	22 Mo 22 Mo	8151 9849		
TOTAL:					259086		16409
NARRATIVE DESCRIPTION							

** Production Lead Time includes the 6 months requirement for components prior to tank delivery.

PLT excludes First Article Test (FAT) or other special test requirements for new producers or tther factors.

ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.

						DATE		
	BUD	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	YTIVITY			P-1 ITEM NOMENCLATURE	3			
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	T VEHS /Tracked Combat 1	Vehicles		MO	DIFICATIONS LESS THAN	MODIFICATIONS LESS THAN \$2.0M (TCV-WTCV) (GA0925)	25)
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	9.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0

DESCRIPTION: This funding provides for the procurement of hardware kits, their application, and fielding support costs for modification with costs of \$2.0M or less for Weapons & Tracked Combat Vehicles.

JUSTIFICATION:

WATER/RATION HEATER: Provides mounting provisions and hardware for an electrically operated water heater/cooking unit in the M113 Family of Vehicles. The unit supplies hot water for drinks, reconstitution of rations, bathing and washing, and can be used to boil or fry foods. Increases crew comfort and morale thus improving soldier effectiveness and lengthening the time the soldier can stay in the field.

BUDGET ITEM JUS PROPRIATION / BUDGET ACTIVITY PROPRIATION / BUDGET ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS /fracked Combat
--

OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
1-94-05-4473 Legislative Comp	Water/Ration Heater 0.6		1.0	0.0	0.0	00	00	00
Totals		1.0	1.0	0.0	0.0	0.0	0.0	0.0
		7. 4.4.5						
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	Ž	ODIFIC/	MODIFICATION INSTALLATION SUMMAF Date	ISTALL/	YION S	UMMAF	Date	February 1997	26
			(TOA, Dollars in Millions)	ollars in	Millions)				
	ă								
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
MODIFICATIONS LESS THAN \$2.0M (TCV-WTCV) GA0925	c	c	C C		C	0	0.0	0.0	-
Valer/hailoif Teater									
Totals	0.0	9.0	0.5	0.0	0.0	0.0	0.0	0.0	1.1

MODIFICATION TITLE:	INDIVIDUAL MODIFICATION Water/Ration Heater 1-94-05-4473	Date February 1997
MODELS OF SYSTEMS AFFECTED:	M113A3, M548A3, M577A3, M58, M1064A3, M1068A3	
DESCRIPTION / JUSTIFICATION:		
Family of Vehicles. The unit supplies hot water Increases crew comfort and morale thus improvi	Family of Vehicles. The unit supplies mounting provisions and hardware for an electrically operated water heater/cooking unit in the M113 Family of Vehicles. The unit supplies hot water for drinks, reconstitution of rations, bathing and washing, and can be used to boil or fry foods. Increases crew comfort and morale thus improving soldier effectiveness and lengthening the time the soldier can stay in the field.	r/cooking unit in the M113 I be used to boil or fry foods. stay in the field.
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	EVELOPMENT MILESTONES:	
Preliminary Design Review:	PLANNED	ACCOMPLISHED N/A
Critical Design Review:		N/A
Contractor Test and Evaluation:		N/A
IPR Production Decision		N/A
TDP Available:		Mar-95
·		

					IND	VIDUA	MODI	INDIVIDUAL MODIFICATION						D	Date		February 1997	y 1997	
MODIFICATION TITLE (Cont):		5	Water/Ration		Heater 1-94-05-4473	1-94-	05-44	73											
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966																	
	and Prior	Prior	FY 1997	266	FY 1998	866	FY 1999	666	FY 2000		FY 2001	FY 2002	202	FY 2003	903	TC		TOTAL	AL
	ģ	છ	Qţ	ક્ક	Q Q	ક્ક	È	&	Oty \$	ð	\$	ð	49	ğ	€	δ	69	ð	49
RDT&E PROCUREMENT																			
Kit Quantity	579	9	412	0.4	432	5.0												1423	10
Installation Kits Nonrecurring	5	3		5		3													
Equipment																			
Engineering Change Orders																			
Data																			
Training Equipment												····							
Support Equipment								-			· · · · · · · · · · · · · · · · · · ·								
Uner Interim Contractor Support																			
	-,,,									7-217-214									
Installation of Hardware																			
FY 1996 & Prior Eqpt Kits			579	9.0														579	0.6
FY 1997 Eqpt Kits					412	0.4				-								412	0.4
FY 1998 Eqpt Kits					108	0.1										324	0.4	432	0.5
FY 1999 Eqpt Kits																			
FY 2000 Eqpt Kits								•											
FY 2001 Eqpt Kits																			
FY 2002 Eqpt Kits																			
FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits)						1				+	+		1				,		
Total Installation Cost			579	9.0	520	0.5										324	0.4	1423	1.5
Total Procurement Cost		9.0		1.0		0.			-	_	_						0.4		3.0
METHOD OF IMPLEMENTATION: Depot/Depot Teams	: Depot	Depot 1	eams		ADMINI	STRAT	VE LEA	ADMINISTRATIVE LEADTIME:	m	3 Months	ths	PRODU	CTION	PRODUCTION LEADTIME:	ME	7	Months		
Contract Dates:		FY 1997:	7:				FY 1998:	<u> </u>	Nov 97			FY 1999:	بد						
Delivery Date:		FY 1997:	7:	Jul 97			FY 1998:		Jul 98	98		FY 1999;	<u>.</u>						

FY 1986			מובו	water/nation heater 1-94-05-44/3	i nec	iler	-94-0	12-44/	n									Da	Date		Feb	February 1997	4				
8 Prior 1 2 3 4 1 3 3 4 3 4		FY 1996		Ŧ	1997			Ī	Y 1998				FY 199	36			FY 200	0			FY 20	01					
8 Prior 193 193 193 193 193 193 193 193 193 193		& Prior		CI.	ന	41											0		4			ď	-				Total
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# Prior 193 193 193 193 193 197 137 108 324 108 324 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3	FY 1998											70															4
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138 137 137 108 324 108 324 109 139 137 108 324 109 139																											
## 198 197 137 108 324 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 I Z 3 4 1 Z 3 4 1 Z 3 4 I Z	Outputs																										
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 3 4 1 1 2 3 4 1 1 2 3 3 4 1 1	FY 1996 & Prior			193			9																				i
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 1997									37																	20
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	BUB	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE				
PROCUREMEN	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	3T VEHS /Tracked Combat	Vehicles			ITEMS LESS THAN \$2.0	ITEMS LESS THAN \$2.0M (TCV-WTCV) (GL3100)	
	FY 1996	FY 1997	.FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2

DESCRIPTION: Provides for procurement/assembly of full tracked vehicle organizational maintenance tool/shop sets. This equipment has multiapplications and is essential for effective maintenance on all tracked vehicles.

acceptable state of readiness. Funding of this program will establish and maintain the operational capability of the Bradley Fighting Vehicle, M1 JUSTIFICATION: Required to provide organizational maintenance personnel with equipment essential to maintain full tracked vehicles in an

WTCV Cost Analysis		A. APPN / BUDG PROCUREMI	ET ACTIVITY ENT OF WE	A APPN / BUDGET ACTIVITY TITLENO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Comban Vehicles	ABT VEHS / 1 /	B. WEAPON ITEMS	S LESS THAN	WEAPON ITEMS LESS THAN \$2.0M (TCV-WTCV)		C. MANUFACTURER NAME Rock Island Arsenaf		D. DATE Febi	rtë February 1997
WTCV	B		FY 96	FY 96		FY 97	(G) (3) (0)	1001	FY 98			FY 99	
Cost Elements	CD	TotalCost	Qfy	UnitCost	TotalCost	Qh	UnitCost	TotalCost	afy	UnitCost	TotalCost	Q _t	UnitCost
		000\$	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	000\$	Each	\$000
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2. Shop Set, Contact G352 and Emergency Repair, FM	52 A	30	6	10	33	е	-	44	4	#	33	6	1.
3. Tool Set, Full Tracked Vehicle, Org Maint, Sup 2	6	66	6		108	6	12	95	8	12	95	8	51

TOTAL		147			141			139			137		

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	BUDG	BUDGET ITEM JUSTII	IFICATION SHEET	ET		February 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	ш			
PROCUREMEN	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	T VEHS /Tracked Combat \	/ehicles			PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050)	ORT (TCV-WTCV) (GA0050	6
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	5.3	9.3	8.9	9.2	9.4	6.6	10.7	10.7

DESCRIPTION: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish, modernize, expand or replace facilities owned by the Army. It provides Production Support, Equipment Replacement (PSR) and Modernization (MOD) to Government owned equipment, real property used in production and production testing of Weapons and Tracked Combat Vehicles. This program also provides funding for the Layaway of Industrial Facilities (LIF) for preservation of equipment and portions of plants which are no longer required for active production and Environmental (Env) restoration to comply with Occupational Safety Health Act (OSHA) for the Environmental Protection Agency (EPA).

JUSTIFICATION: The FY98 and FY99 request supports major rehabilitation of industrial plant equipment at various facilities, in acquiring components and spare parts for the M-1 and the M-1 Upgrade Program. Contractor plants supported are Lima Army Tank Plant and Scranton Facility.

FY 1999	8.800	0.350		9.150
FY 1998	8.585	0.357		8.942
FY 1997	8.959	0.360		9.319
FY 1996	3.443	0.432	1.448	5.323
	PIF	님	ENA	TOTAL



⁵rojects

Production Support and Facilities Projects		DATE Feb	February 1997	
APPROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE			
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Tracked Combat Vehicles	PRODUCTIO	PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050)	CV) (GA0050)	
PROJECT NO. TYPE NAME/LOCATION	FY 1996	EY 1997	FY 1998	FY 1999
E Stratford Army Engine Plant E Stratford Army Engine Plant Provides for correction of OSHA/EPA deficiencies and minimum facility projects in support of tank engine production. The Stratford plant manufactures the AGT 1500 engine for the ABRAMS tank.	1.448			

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	æ	BUDGET ITEM JUSTIF	M JUSTIFICA	FICATION SHEET	t:			Februa	February 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	WPNS & TRKD CME	BT VEHS /Weapons	and Other Combat V	ehicles			•	ARMOR MACHINE GUN, 7.62MM (G13000)	IUN, 7.62MM (G130C	(0)	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	0	0	2,034	0	673	1,856	1,875	0	0	2,768	9206
COST (in millions)	0.0	0.0	20.0	0.0	7.0	19.2	19.8	0.0	0.0	29.4	95.4
Initial Spares (in millions)											
Total (in millions)	0.0	0.0	20.0	0.0	7.0	19.2	19.8	0.0	0.0	29.4	95.4
Unit Cost (in millions)	0.000	0.000	0.010	0.000	0.010	0.010	0.011	0.000	0.000	0.011	0.010
DECCRIPTION. The Motor Marking	- MOVON										

flash suppressor, front sight, carrying handle for the barrel, buttstock, pistol grip, bipod, heat shield and rear sight assembly. The M240B Machine Gun may DESCRIPTION: The M240B Machine Gun is a ground version of the M240 Machine Gun, the 7.62mm Medium Machine Gun class weapon designed as a features fixed head space, which permits rapid changing of the barrels. The principle difference between the M240 and the M240B is the addition of a coaxial/pintle-mounted weapon for tanks and light armored vehicles. The M240B is an air cooled, link-belt fed, gas operated weapon. The weapon also be tripod-mounted and used in conjuction with a traversing and elevating mechanism and a flex mount pintle. JUSTIFICATION: The M240B Medium Machine Gun is an infantry version of the M240 Armored Machine Gun intended to replace the M60 Series Machine Medium Machine Guns in order to provide the dismounted infantryman a more reliable, accurate, and lethal medium machine gun to suppress and destroy Gun in light infantry, mechanized infantry, and combat engineer units. The US Army has identified a need to upgrade its current inventory of 7.62mm enemy personnel, lightly armored vehicles, and fortified positions.

This P-form only reflects the quantity bought under the Armor Machine Gun budget line. The total Army Procurement Objective of 10,406 M240B model 7.62mm medium machine guns includes 1,200 weapons procured in FY1996 on GZ1300 (Medium Machine Gun Mod) and 9,206 weapons procured on

WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRI	ET ACTIVIT	Y TITLE/NO PNS & TRKD C	APPN/BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS/2/	B	WEAPON ARMOR MACHINE GUN, 7.62MM (G13000)	JN, 7.62MM (G		C. MANUFACTURER NAME FN Manufacturing, Inc.		D. DATE Febn	TE February 1997
VOTM	٥	Wear	FY 96	Weapons and Other Combat Vehicles FY 96	ehicles	FY 97			FY 98			FY 99	
Cost Elements	CO	TotalCost	Q.	UnitCost	TotalCost	ğ	UnitCost	TotalCost	Qf.	UnitCost	TotalCost	Qty	UnitCost
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 Hardware (Incls Flex Mount & Blank Firing Device) 					18910	2034	6				6518	673	10
2. Engineering Support - In House Support					324						122		
3. Quality Assurance (ARDEC)					69				,		22		
4. Engineering Studies					305				-		100		
5. Testing (TECOM)					120						120		
6. Fielding					259						85		
TOTAL					19981						2969		
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B. APPROPRIATION / BUDGET ACTIVITY PROCUREMENT OF WPNS & T	ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehidles	er Combat Veh	ilcles	i	C. P-1 ITEM I	C. P-1 ITEM NOMENCLATURE ARMOR MACI	IENCLATURE ARMOR MACHINE GUN, 7.62MM (G13000)	2MM (G13	(000	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST	ΥTO	UNITCOST	SPECS AVAIL	S < E	IF YES W/A
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REMARKS:										



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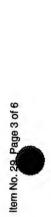
	8	BUDGET ITEM JUSTI	W JUSTIFIC,	FICATION SHEET	i.		DATE	Februa	February 1997		
APPROPRIATION / BUDGET ACTIVITY	YTIVI				P-1 ITEM NOMENCLATURE	LATURE					
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	3T VEHS /Weapons	and Other Combat V	fehicles				MACHINE GUN, 5.56MM (SAW) (@12900)	MM (SAW) (G12900	6	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	EV 2001	EV 2002	EV 2003	To Complete	Total
QUANTITY	56707	9430	3802	406	1570			7007	2002	2003	5
COST (in millions)	139.0	27.6	12.1	5.6	4.9	00	0	c		000	19900
Initial Spares (in millions)								200	25	69.0	212.2
Total (in millions)	139.0	27.6	12.1	5.6	4.9					030	212.2
Unit Cost (in millions)	0.0	0.0	0.0	0.0	0.0					0.0	00

DESCRIPTION: The Squad Automatic Weapon (SAW) is a lightweight (22 pounds with 200 rounds of ammunition), 5.56mm, one-man operated weapon capable of delivering a sustained volume of automatic, accurate, and lethal fire at ranges of up to 800 meters. The Army configuration was changed Oct 89 to include a spare barrel, additional heat shield and barrel bag.

elements of the air cavalry units, as well as non-infantry units. This procurement profile will equip selected elements of the above mentioned units on their survivability. This lightweight, highly mobile machine gun will be used by infantry, light infantry, airborne infantry, mechanized infantry and JUSTIFICATION: The sustained fire capability and increased range are urgently needed throughout infantry rifle squads in order to enhance a priority basis.

Page Page	WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR	T ACTIVITY AT OF WP	TITLE/NO VS & TRKD CA	A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 /	B. WEAPON MACHIN	NE GUN, 5.56	WEAPON MACHINE GUN, 5.56MM (SAW) (G12900)		C. MANUFACTURER NAME FN Mfg. Co.		D. DATE Febru	TE February 1997
Cost Elements Do TotalCost Chy UnilCost TotalCost TotalCos	WILM	2	Weap	FV 96	ner Combat Ve	nicles	FY 97			FY 98			FY 99	
sering Support A 24817 9430 3 10006 3802 3 1088 reering Support 54 626 445 <th>Cost Elements</th> <th>8</th> <th>TotalCost</th> <th>O. O.</th> <th>UnitCost</th> <th>TotalCost</th> <th>Q_t</th> <th>UnitCost</th> <th>TotalCost</th> <th>Qty</th> <th>UnitCost</th> <th>TotalCost</th> <th>Oth</th> <th>UnitCost</th>	Cost Elements	8	TotalCost	O. O.	UnitCost	TotalCost	Q _t	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Oth	UnitCost
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lity Assurance (ARDEC) 40 106 ling (TECOM) 115 150 lineering Change Proposal (ECP's) 65 65 sing 1801 1236 Maintenance 58 35 raage 4 4 furbishment 5 12092 diffied Work Order 5 12092			55			90	·. 		445			200		
ing (TECOM) Ineering Change Proposal (ECP's) 65 Ging Indin	4. Quality Assurance (ARDEC)		40			106			68			35		
444 444 444 444 444 445 444 445 444 445	5. Testing (TECOM)		115			150						115		
Jing 1801 1236 Maintenance 58 1236 srage 35 4 furbishment 5 12092	6. Engineering Change Proposal (ECP's)				***************************************	444		- 	20			25	······································	
intenance 58 35 35 shment 4 4 5 5 12092	7. ILS		65			65			09			20		
rder 55 35 27585 12092	8. Fielding		1801			1236			3837			145	•••••	
27585 12092	9. TDP Maintenance		58	**					,					
27585 12092	10. Storage					35								
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12092	12. Modified Work Order		ro											
	TOTAL		27585			12092			5569			4887		
													250 m	

	BUDGET PROCUREMENT HISTORY AND	PLANN	PRY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	997
B. APHOPHIATION / BUDGET ACTIVITY PROCUREMENT OF WPNS & TR	ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles	r Combat Vel	licles		C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE MACHINE GL	ENCLATURE MACHINE GUN, 5.56MM (SAW) (G12900)	AWA (G12)	e e	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT	CONTRACTED BY	AWARD DATE	DATE OF FIRST	ΔIIV	UNIT COST	SPECS	EV	F YES WIA
Hardware		AND I YPE			DELIVERY	Each	\$000	MOM	REQ'D	
FY 96	FN Mfg. Co., Inc., Columbia, SC	SS/FFP M-3(1)	ACALA	Jul-96	Jul-96 Jan-97	9430	ဗ	Yes	Š	
FY 97	FN Mfg. Co., Inc., Columbia, SC	SS/FFP M-3(2)	ACALA	Dec-96	Sep-98	3802	8	Yes	2	
FY 98	FN Mfg. Co., Inc., Columbia, SC	SS/FFP M-3(3)	ACALA	Jan-98	Jun-99	406	n	Yes	2	
FY 99	FN Mfg. Co., Inc., Columbia, SC	SS/FFP ACALA	ACALA	Jan-99	Jul-99	1570	8	Yes	S _o	
REMARKS;									1	T





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	<u>m</u>	BUDGET ITEM JUSTIFICATION SHEET	M JUSTIFICA	ATION SHEE	==			February 1997	y 1997		
APPROPRIATION / BUDGET ACTIVITY	YTIVI				P-1 ITEM NOMENCLATURE	LATURE					
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	WPNS & TRKD CM	9T VEHS /Weapons	and Other Combat V	(ehicles			GRENAD	GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)	O, 40MM, MK19-3 ((G13400)	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY	11766	1500	2150		720	1067	783	1124	1595	986	21691
COST (in millions)	181.7	32.8	33.2	0.0	13.1	19.9	14.9	21.9	31.8	17.7	367.0
Initial Spares (in millions)											
Total (in millions)	181.7	32.8	33.2		13.1	19.9	14.9	21.9	31.8	17.7	367.0
Unit Cost (in millions)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
DESCRIPTION: The MK19 Mod 3 is a self-nower	MK19 Mos	13 is a self-n	owered air.	world blow	hack 40mm	automatic a	Junel obene	rad sit-molad blowback 40mm sutomatic granda launchar canable of a givelin rate of 395-375	of a cyclic r	ate of 305.27	Ľ

rounds per minute. It will engage point targets up to 1,500 meters and provide suppressive fire up to 2,200 meters. Component Items for this system THE MIN 19, MOD 3 IS A SEIT-POWERED, AIT-COOIED, DIOWDACK, 4UMM AUTOMATIC GRENAGE IAUNCHER CAPABLE OT A CYCLIC TATE OF 325-375 include the 40mm asssembly group 1 and the MK64 mount.

CONUS requirements. The MK175 Pedestal Mount is being incorporated on the MK64 Mount to improve the accuracy and dispersion of the MK19-3 when JUSTIFICATION: The weapon will be mounted on the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV), the Armored Personnel Carrier family of select M2 cal .50 and M60 7.62mm machine guns in mechanized, light infantry, engineer, military police, and other combat support and combat service support units. Procurement will help reduce critical supply position for high-priority equipment readiness code (ERC) A shortages in Europe, Korea, and vehicles and the M88A1 Recovery Vehicle. During static defensive operations, it will be ground employed utilizing the M3 Tripod Mount. It will replace used on the HMMWV application.

WTCV Cost Analysis		A. APPN / BÜÜĞET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRI	IT ACTIVITY	TITLE/NO NS & TRKD CA	A. APPN/BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS/2/	B. WEAPON GRENADE	E LAUNCHER,	B. WEAPON GRENADE LAUNCHER, AUTO, 40MM, MK19-3		C. MANUFACTURER NAME		D. DATE Febru	February 1997
	9		O pue suo	Weapons and Other Combat Vehicles	hicles	10,762	(G13400)	(00)	20.00			200	
WTCV	2 5	TotalCost	\$ 00 €	LinifCoet	TotalCost	18 A	UnitCost	TotalCost	A 0	UnitCost	TotalCost	£ 0	UnitCost
COSt Elements	3		Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Hardware	-	20079		13	4282 22459 3820		t 41				10339	720	14
2. Round Removal Tool (GFM)		249			252						88		
3. Engineering Support In House		1785			1190						1036		
4. Quality Assurance (ARDEC)		45			41						S.		
5. Integrated Logistic Support		108		,	50						1360		
6. Engineering Change Proposal	70-yl-yl-1983	1012			505								
7. Testing (TECOM)		315			324								
8. Fielding		516			245						247		
M175 Material Change (Application Costs)	-	15											
10. MK19 Claim		8688											
TOTAL		32812			33168						13075		
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	BUDGET PROCUREMENT HISTORY ANI) PLANNI	RY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	7997
B. APPHOPRIATION / BUDGET ACTIVITY PHOCUREMENT OF WPNS & 1	ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles	er Combat Veh	icles		C. P-1 ITEM I	C. P-1 ITEM NOMENCLATURE	M NOMENCLATURE GRENADE I AINCHED AITO ANNA MAYOO (CASARO)	W MK10	0,619,00	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD	CONTRACTED BY	AWARD	DATE OF FIRST	ατγ	UNIT COST	SPECS AVAIL	SPEC REV	IF YES W/A
Hardware FY96	SACO Defense, Saco, Maine		ACALA	96-Inf	лесичену Мау-97	1500	\$000	Yes	No No	
FY97	SACO Defense, Saco, Maine SACO Defense, Saco, Maine SACO Defense, Saco, Maine	SS/FFP M-2(2) Option SS/FFP M-3(1)	ACALA ACALA ACALA	Nov-96 Jun-97 Jul-97	May-98 Jul-98 Oct-00	320 1564 266	£ 44 44	Yes Yes Yes	2 22	
FY99	SACO Defense, Saco, Maine	SS/FFP M-3(2)	ACALA	Dec-98	Mar-00	720	14	Yes	2	
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REMARKS:										





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						Γ	P-1 ITEM	P-1 ITEM NOMENCLATURE	LATURE								l	DATE		l	l	l		
FY 96 / 97 BUDGET PRODUCTION SCHEDULE	3ODU (CTION	SCHE	DULE					GREN	GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)	INCHER	AUTO,	40MM,	JK19-3	(G1340	(0				F	February 1997	1997		
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	•	BUDGET ITEM JUST	M JUSTIFIC,	TIFICATION SHEET				Februa	February 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	XATURE					
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other (WPNS & TRKD CM	3T VEHS /Weapons	and Other Combat Vehicles	ehicles				M16 RIFLI	M16 RIFLE (G14900)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FV 2001	EV 2002	EV 2003	To Complete	Total Brogge
QUANTITY	510841	31056	15583	11297	21077	23767	19890	0	000	176630	9404E0
COST (in millions)	234.2	13.1	6.5	5.1	9.5	10.2	10.1	0.0	00	140.0	420.3
Initial Spares (in millions)										201	153.0
Total (in millions)	234.2	13.1	6.5	5.1	9.2	10.2	10.1	0.0	6	140.9	429.3
Unit Cost (in millions)	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001

aluminum magazine and is designed for use as the primary infantry weapon. The M16A2 is an improved version the M16A1 Rifle. Improvements include: from hitting left-handed shooters, and a stronger barrel reinforced with additional metal and a change in the twist ratio of the bore to accommodate NATO compensator which reduces the raise or jump of the muzzle when fired, a burst control device limiting the automatic fire to a miximum of three rounds per trigger pull, and adjustable rear sight and square front sight post for a more distinct sight picture, a brass deflector to prevent hot brass cartridge casings DESCRIPTION: The M16A2 Rifle, 5.56mm, is a gas operated, air cooled, magazine fed, selective rate shoulder fired weapon. It is fed by a 30 round strengthened plastic handguard, rifle stock and pistol grip to increase durability of the weapon, interchangeable handguard halves, muzzle brake standard 5.56mm ammunition. The maximum effective range of the M16A2 has increased from 460 to 550 meters. JUSTIFICATION: The M16A2 Rifle Program for FY98/99 provides additional rifles for fielding against the Force Modernization requirement for pure fleeting the field with the M16A2 Rifle. Without additional M16A2 Rifles, a logistic problem associated with different ammunition requirements for the M16A1 vs M16A2 is perpetuated. Funding also supports the M16 Rifle Industrial Base.

This P-Form only reflects the Qty bought under the M16 Rifle Line. The total Army Procurement Objective of 925,450 M16A2 rifles includes 115,300 weapons purchased on GZ2800 (M16 Rifle Mods) and 810,150 weapons procured on G14900.



WTCV Cost Analysis	₹	A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR	T OF WP	IS & TRKD CA	PROCUBEMENT OF WORMS & TRACK CMBT VEHS / 2 /	B. WEAPON	M16 RIFLE (G14900)	(G14900)		C. MANUFACTURER NAME FN Mfg. Co		Febru	February 1997
WTCV	₽	Weap	FY 96	vveapons and Ciner Compar venicles FY 96	anigles	FY 97			FY 98			FY 99	
ents	CO	TotalCost	Q Ofy	UnitCost	TotalCost	ğ	UnitCost	TotalCost	δ	UnitCost	TotalCost	Offy	UnitCost
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1. Rifle (Includes Slings and Magazines)	⋖	12354	31056	398	4109 616 1480	10320 1548 3715	398 398	4499	11297	398	8392	21077	398
2. Engineering Support - In House Support		343						409			415		
3. Engineering Change Proposals		125			83			40			64		
4. Quality Assurance (ARDEC)		47			45			46			48		
5. Integrated Logistics Support		65			65			65			65		
6. Testing (TECOM)					130						138		
7. Fielding		133			18			30			30		
TOTAL		13067			6546			5089	,		9152		

BUDGET PRC	BUDGET PROCUREMENT HISTORY AND	PLANN	RY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	26
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM A	C. P-1 ITEM NOMENCLATURE	JRE			
PROCUREMENT OF WPNS & T.	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles	er Combat Vel	nicles				M16 RIFLE (G14900)	(00€		
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST	QTV	UNITCOST	SPECS		IF YES W/A
1. Rifle (Includes Slings and Magazines)					DELIVERI	Caci	9	NO.	O DE	
FY 96	FN Mfg. Co., Inc., Columbia, SC	C/FFP M-5(1)	ACALA	Aug-96	Jan-97	31056	398	Yes	§	
FY97	FN Mfg. Co., Inc., Columbia, SC		ACALA	Nov-96	Dec-98	10320	398	Yes	8	
	FN Mfg. Co., Inc., Columbia, SC TBS	Option C/FFP	ACALA ACALA	Nov-96 Jul-97	Jul-99 Nov-97	1548 3715	398 398	Yes	22	
FY 98	FN Mfg. Co., Inc., Columbia, SC	C/FFP M-5(3)	ACALA	Jan-98	Aug-99	11297	398	Yes	8	
FY 99	FN Mfg. Co., Inc., Columbia, SC	C/FFP M-5(4)	ACALA	Jan-99	Apr-00	21077	398	Yes	Š	
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a	FY 98 / 99 BUDGET PROPUCTION SCHEDULE	SCHE	DULE	ACCEB		P-1 ITEM N	P-1 ITEM NOMENCLATURE	RE M16 F	M16 F	M16 RIFLE (G14900)	314900		-			DATE		Feb	February 1997	997		
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NAME / LOCATION		N.	1-8-5	,,	MAX.	+0	-		INITIAL		-	-	1		L	2		L	4	Γ		6	Ī	and D	96 98	enp s	to a ch	and Dec 96 is due to a change in	_
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Prior Years 57474 31.8

PPROPRIATION / BUDGET ACTIVITY

31.8 0.0

Initial Spares (in millions)

COST (in millions)

QUANTITY

Jnit Cost (in millions)

Total (in millions)

operating in close quarters the capability to engage targets at extended ranges with accurate lethal fire. Although more compact and featuring a collapsible magazine and will replace all M3A1 WWII era .45 cal Submachine guns, and selective M16 series rifles and M9 pistols. It provides the individual soldier DESCRIPTION: The M4 Carbine is a 5.56mm gas-operated, air-cooled, magazine-fed, selective-rate, shoulder-fired weapon. It is fed by a 30-round stock, it achieves over 85% commonality with the M16A2 rifle. The effective range is 500 meters.

in close quarters. The FY98/99 program will allow for the uninterrupted fielding of the M4 Carbine to Army units. Procurement Is necessary to achieve the JUSTIFICATION: The M4 Carbine will provide soldiers with a compact, light-weight weapon that can provide better self protection and additional firepower Army Acquisition Objective (AAO) for the M4 Carbine.

WTCV Cost Analysis		PROCUREMENT OF WHAT & CHRIS CMBT VEHS / 2 / Washington Of Other Combat Vehicles	NT OF WP	REMENT OF WPNS & TRKD CMBT VE Weening and Other Combet Vehicles	ABT VEHS / 2 /	ις.	5.56 CARBINE	5.56 CARBINE M4 (G14904)		TBS		Febru	February 1997
WTCV	₽		FY 96	The Section of	Sala	FY 97			FY 98			FY 99	
ents	CD	TotalCost	Otty	UnitCost	TotalCost	Oth	UnitCost	TotalCost	QIA	UnitCost	TotalCost	Qty	UnitCost
		000\$	Each	000\$	000\$	Each	\$000	000\$	Each	\$000	000\$	Each	\$000
 Hardware M4 Carbine w/Sling Magazine & Blank Firing Attachment 	⋖	5161	9785	-	5902	10603	-	4166	7484	-	8545	15352	-
2. Engineering Support - In House Support		400						425	A		375		
Engineering Change Proprosals (ECP's)		59			46			105			92		
4. Quality Assurance (ARDEC)		75			75			75			75		
		65						65			65		
Engineering Studies		220											
7. Comparison Test (TECOM)					175								
Fielding		312			348			253			416		
тотац		6292			6546			5089			9568		
	_												

	BUDGET PROCUREMENT HISTORY AND	PLANN	RY AND PLANNING EXHIBIT (P-5A)					DATE	February 1997	007
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	#		anidary	100
PROCUREMENT OF WPNS & .	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles	er Combat Ve	hicles			5.5	5.56 CARBINE M4 (G14904)	314904)		
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	METHOD AND TABL	CONTRACTED BY	AWARD DATE	DATE OF FIRST	αпу	UNITCOST	SPECS	SPEC	IF YES WIA
Hardware		AND LIPE			DELIVERY	Each	\$000	MON	REQ'D	
FY 96	Colt's Mfg Co., Inc., Hartford, CT	SS/FFP	ACALA	Sep-96	Mar-98	9785	-	Yes	2	
FY 97	TBS	C/FFP M-4(1)	ACALA	Jun-97	Nov-98	10603	-	Yes	2	
FY 98	7BS	C/FFP M-4(2)	ACALA	Jan-98	Aug-99	7484	_	Yes	8 N	
FY 99	TBS	C/FFP M-4(3)	ACALA	Jan-99	Feb-00	15352	· ·	Yes	£	

REMARKS:									1	



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COSTELEMENTS 1 9 56 PP No. 1		Σ		-			DUE			_			100	alen	dar	'ear	96					2	ဦ	lend	ar Y	ear 9	7		T	. A
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1 956 APT RAISE 0.5 0.5 0.0 0.2 1	Hardware		5 & Pr	A	57.5	7.1	50.4	~	0.0	Ц	1.0	1.0	\vdash	\rightarrow		\vdash	\vdash	-	\rightarrow	-	_	4.0	4.0	3.0	0.4	2.0	-	-	0.3	2.5
1 956 APP FOMM 0.2 0.0 0.0 0.0 1.5 1				z	6.0	6.0	0.0	+	\dashv	\downarrow			7	+	+	\dashv	\dashv	4	_						T	T	1	+	+	
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1 FY 96 OTH 10 0.0 1.06				OTH	1.5	0.0	1.5								H	-	•			1.5										
2 FY 98 A 75 00 106 A 10 B 10 B 10 B 10 B 10 B 10 B 10 B 10				ОТН	1.0	0.0	1.0			Ц						Н	-				∢			1.0						
1 FY 99			FY 97	A	10.6	0.0	10.6									Н			_							<				9.01
2 FY 99 A 15.4 0.0 15.4 0.0 15.4 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5			FY 97	z	1.8	0.0	1.8								Н	Н	_	_				٨			1.8					
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108.5 8.5 100.0 0.0 1.0		+						+	+	1	\prod		+	+	+	+	+	+	+	1						1	\dagger	+	+	
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EV 96 / 97 RINGET PRODUCTION SCHEDIII	6	NOLL	SCHE	110			P-1 IT	P-1 ITEM NOMENCLATURE	MENC	LATU	문	5.5	SCAR	5.56 CARBINE M4 (G14904)	M4 (G	14904						DATE			Febr	February 1997	266			
				-	ACCEP.	BAL			ı	Γ	-18ca	Fiscal Year 00	100					L		l	1	FIS	cal	Fiscal Year 01	5				H	~
	Σ		-		PRIOR	DUE			-				Ca	Calendar Year 00	ır Ye	ar 0							ပ်	lend	ar Y	Calendar Year 01	-			· «
COST ELEMENTS	шш	£	шс>	Each	1 OCT	AS OF 1 OCT	00+	20>	ОШО	7 K Z	r π α Σ ∢ π	< G E	∑∢≻	7 D Z	704	∢⊃७	ωmσ	00+	z 0 >	<u>о</u> ш о	¬ ∢ Z	пшв	Σ∢α	4 G E	≅∢≻	っつz	~ D _	∢⊃೮	லயா	⊢ш∝
Hardware	1	95 & Pr	٧	57.5	57.5	0.0		Г	H	\vdash	Н	H	Н	Ц												П		H		
	-		z	6.0	6.0	0.0																								
	-	95 & Pr	SDAF	0.5	0.5	0.0																								
	1	95 & Pr	FMS	0.5	0.5	0.0																						-		
	-	FY 96	٨	9.6	9.8	0.0					_	_	_																	
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	-	FY 96	ОТН	1.5	1.5	0.0							_																	·
	-	FY 96	ОТН	1.0	1.0	0.0				-	H	_																		
	N	FY 97	A	10.6	10.6	0.0					-	_																	_	
	2	FY 97	z	1.8	1.8	0.0				H																				~
	2	FY 98	٧	7.5	2.4	5.1	1.2	1.2	1.2	1.2 0	0.3																			
	2	FY 99	A	15.4	0.0	15.4				0	0.9 1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.1							ο.
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TOTAL				108.5	88.0	20.5	1.2	1.2	1.2	1.2	1.2 1.2	2 1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1,2	1.2	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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1 Con's Mrg Co., Inc., Harriord, C.1	T			4	,	2			NITIAL		╀	ļ			L	•		L	•	Γ		2	T							
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	BUD	BUDGET ITEM JUST	TIFICATION SHEET	EET		DATE	February 1997	
APPROPRIATION / BUDGET ACTIVITY	YTIVI			P-1 ITEM NOMENCLATURE	123			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	1S /Weapons and Other Co	umbat Vehicles			M4 CARBINE MODS (GB3007)	10DS (GB3007)	
	FY 1996	FY 1997	FY 1998	FV 1999	EV 2000	EV 2004	0000	0000 71
OI IANITITY				200	2007	1 2001	L1 2002	FY 2003
GOANTIT	0	0	0	0	0	C	c	O
COST (in millions)	0.9	2.1	2.2	5.3	5.6	00	00	
						2:0	2.5	0.5

DESCRIPTION: The M4 Carbine Modification Program provides a close combat optic, a modular weapon suite and an improved buttstock for the M4 Carbine and also provides the capability for firing the M203 Grenade Launcher (GL) with the M4 Carbine. JUSTIFICATION: The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in key component of Land Warrior Lethality and allows the combat commander to custom configure weapons based upon the mission. The improved buttstock provides the rifleman an ergonomically optimized buttstock for the M4 Carbine. close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a

BUDGET ITEM JUSTIFICATION SHEET	EET	DATE February 1997
APPROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / Weapons and Other Combat Vehicles		M4 CAHBINE MODS (GB3007)

OSIP No.	Description							
Classification	All PYs FY 1997	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
TBD1	Close Combat Opt	lics (M4 Carbine)						2002
OPERATIONAL	0.0	1.4		2.6	5.6	0.0	0.0	0.0
TBD2	M203 for M4 Carbine	ine						
Operational	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
TBD3	Modular Weapon	Modular Weapon System (M4 Carbine)						
Operational	0.0	0.4	0.4	1.1	0.0	0.0	0.0	0 0
TBD4	M4 Improved Buttstock							2
Operational	0.0	0.0	0.7	1.6	0.0	0.0	0.0	0.0
Totals	6.0	2.1	2.2	5.3	5.6	0.0	0.0	0.0
				A CONTRACTOR OF THE CONTRACTOR				
							•	

			407					February 1997	26
			(IOA, D	ollars in	(10A, Dollars in Millions)				
System/Modification	PY 1996	FY 1997	FY 1998	FY 1999	FY 2000	EV 2001	EV 2002	EV 2003	TOTAL
No P3a Set for modification	*		+	200	200	T PANT	-	SAMS I	חסוסו
M4 CARBINE MODS									
GB3007									
Close Combat Optics (M4 Carbine)	0.0							C	6
M203 for M4 Carbine	0.0							9 6	3 6
Modular Weapon System (M4 Carbine)	0.0			0.0				0.00	5 6
M4 Improved Buttstock	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Totals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	INDIVIDUAL MODIFICATION		Pole	
MODIFICATION TITLE:	Close Combat Optics (M4 Carbine) TBD1		redudaly 1997	
MODELS OF SYSTEMS AFFECTED:	M4 Carbine, XM68 Sight Reflex, XM195 Sight Mount	Aount		
DESCRIPTION / JUSTIFICATION:				
The XM68 Sight will be install open allowing greater awaren daylight, Iow light level, wet w	The XM68 Sight will be installed on the M4 Carbine with XM195 Mount. The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity. The close combat optic gives the soldier greater hit probability in daylight, low light level, wet weather and other adverse conditions.	se combat optic allows those combat optic gives the	e soldier to fire a weapon with both he soldier greater hit probability in	yes
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	EVELOPMENT MILESTONES:			
		PLANNED	ACCOMPLISHED	
Development/Operational Test	al Test		1/2Q96	
Type Classification			4Q96	
Production Contract Award	ard		4Q96	
First Production Hardware Delivered	ire Delivered		1097	
First Unit Equipped		3Q97		

10133 10133 10133 10133 3.6						בֿב	VIDUAL	INDIVIDUAL MODIFICATION	フニエンニ	Z						Date		Feb	February 1997	
C	AODIFICATION TITLE (Cont):		ō	ose C	ombat	Optic	s (M4	Carbin	le) TBI	10										
Support Supp	INANCIAL PLAN: (\$ in Millions)	FY	966		, 6	0														
Coly \$ C		and	Prior	FY 1	266	FY 1	966	FY 19	66	FY 20	000	FY 20	10	FY 200	01	FY 2003		TC	TC	TAL
1,489 1,489 1,186 2,284 8730 1,9838 1,9838 1,9838 1,186 1,		QÌ	€	Q S	8	Q Q	8	Oty	8	Q.	69	Off.	69	_		_	\vdash	F	ð	8
3020 4744 3284 8730 19636	IDT&E		1.469																	1.4
Fig. 1.186 0.903 2.401 5.400 2.800 2.800 2.800 2.903 2.401 5.400 2.903 2.401 5.400 2.903 2.401 5.400 2.903 2.800 2.903 2.401 2.800 2.903 2.903 2.401 2.803 2.401 2.401 2.803 2.401 2.803 2.401 2.803 2.401 2.803 2.401 2	Quantity	3020		4744		3284		8730		19636							1013	<u> </u>	49547	
Ing 0.755 1.186 0.903 2.401 5.400 0.115 2.800 Support 0.005 0.020 0.030 0.020 0.0	Installation Kits																			
hing 0.075 0.140 0.139 0.138 0.115 0.105 0.050 0	Equipment		0.755		1.186		0.903		2.401		5 400							0000		•
CODED 0.140 0.139 0.116 0.015 0.010 0.050 <th< td=""><td>Equipment Nonrecurring</td><td></td><td></td><td></td><td></td><td></td><td>3</td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.00.7</td><td></td><td>5. 4</td></th<>	Equipment Nonrecurring						3				2							7.00.7		5. 4
Support 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.020 <	Engineering Support		0.075		0.140		0.139		0.138		0.115							0.110		0.71
Support 0.010 0.020 <	Testing		0.050		0.050		0.050		0.050	_	0.050		-					0.050		0.30
Pport First State	Integrated Logistical Support		0.010		0.020		0.020		0.020		0.020							0.020		0.11
Propert Fig. 19020 19020 19030	Fielding		0.010		0.020		0.020		0.020	_	0.020							0.020		0.11
Fig. 1.132 1.133 1	Ourier Outrel											*******								
Pt - Kilis 3020 3284 8730 19636 19636 10133 10133 3000 Standard Holes 1,132 2,629 5,605 1,0133 10	menni cominacioi support								-							•				
Fig. 1.1. S. S. S. S. S. S. S. S. S. S. S. S. S.																		-		
S 752 3992 8730 8730 19636 9636 9636 9636 9636 9636 9636 963	nstallation of Hardware																			
S	FY 1996 & Prior Eqpt Kits			3020															3020	
S	FY 1997 Eqpt Kils			752		3992													4744	
8 8730	FY 1998 Eqpt Kits					3284													3284	
s) 3772 7276 8730 19636 10133	FY 1999 Eqpt Kits	_						8730			*****								8730	
s) 3772 7276 8730 19636 5.605 10133 10133 49547 ost	FY 2001 Eqpt kits									19636						• ,			19636	
s) 3772 7276 8730 19636 19636 10133 10133 49547	FY 2002 Eqpt kits												·							
ost 0.900 1.416 1.132 2.629 5.605 19636 19	FY 2003 Eqpt kits (FY/TC) Fant (xx kits)																,	-	-	
0.900 1.416 1.132 2.629 5.605 3.000	Total Installation Cost			3772		7276		8730	+	9636	+	+	1		+		10135	2 6	49547	
	Total Procurement Cost		0.900				1.132	.,,		1	3.605				\parallel					
	Contract Dates: Aug-96	ш и	Y 1997				u. i	Y 1998:				2	LÍLÍ	Y 1999:				MODINE		
:3			1001				L	1330.					_	1888						



Installation Schedule:		ose (Comb	at Op	tics (I	M4 Ca	Close Combat Optics (M4 Carbine) TBD	TBD	_							ă	Date		Febru	February 1997					
	FY 1996		F	FY 1997			F	FY 1998			FY 1999	666			FY 2000	00			FY 2001	=					
	& Prior	-	CI	(C)	ধা	-	OI.	B	41	-	Q.	m	41	-	Q.	(C)	41	-	c)		41				Total
Inputs																					i				
FY 1996 & Prior																									
FY 1997																									
FY 1998																									
FY 1999																									
Outputs																									
FY 1996 & Prior																									
FY 1997																									
FY 1998																									
FY 1999																									
			FY 2000	00			FY 2001	91			FY 2002	οı		Щ	FY 2003			Ĺ	FY 2004			FY 2005	05		
		_	7	8	4	_	8	က	4	-	C)	က	4	-	8	က	4	-	8	က	4	1 2	က	4	Total
Inputs																									
FY 2000																									
FY 2001																									
FY 2002																									
FY 2003																									
Outputs																									
FY 2000																									
FY 2001																									
FY 2002																									
FY 2003																									
Remarks:	The installation schedule is not required for this modification.	tallatic	on sche	dule is	not req	ulred fo	r this m	odificat	ion.																
																									-

	INDIVIDUAL MODIFICATION		Date	February 1997
MODIFICATION TITLE:	M203 for M4 Carbine TBD2			
MODELS OF SYSTEMS AFFECTED:	M4 Carbine, M4A1			
DESCRIPTION / JUSTIFICATION: The Army units assigned the M	ESCRIPTION / JUSTIFICATION: The Army units assigned the M4 Carbine will obtain the capability to fire the M203 Grenade Launcher (GL) with the M4 Carbine.	3 Grenade Launcher (G	L) with the M4 Carbine.	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES:			
	ı	PLANNED	ACCOMPLISHED	
Developmental/Operational Tests	nal Tests		1097	
Type Classification/Milestone III	tone III	2097		
Production Contract Award	· ·	3097		
First Production Hardware Delivered	re Delivered	4097		
First Unit Equipped		4097	-	

				N	IVIDUA	L MODI	INDIVIDUAL MODIFICATION	N						۵	Date		Febru	February 1997	
MODIFICATION TITLE (Cont):	N	1203 fc	M203 for M4 C	Carbin	arbine TBD2	20													
FINANCIAL PLAN: (\$ in Millions)	FY 1996		}		7														
	and Prior	FΥ	FY 1997	FY 1998	866	FY 1999	666	FY 2000	000	FY 2001	100	FY 2002	05	FY 2003	03	TC	O	TOTAL	AL
	City \$	φ	s	Offy	69	Qf	ક્ર	δ	69	Q Qf	69	φ	69	ਣੇ	69	οţ	69	δ	છ
RDT&E	0.631						Ī												0.631
PROCUREMENT															***				
Quantity		1942													-			1942	
Installation Kits																			
Installation Kits Nonrecurring	_																		
Equipment			0.160																0.160
Equipment Nonrecurring																			
Engineering Support			0.070				-								~				0.070
Testing																			
Integrated Logistical Support			0.040										,		-				0.040
Fielding			0.030								•								0.030
Other																			
Interim Contractor Support																			
																			
Perdiation of Hardward																-,			
IIIstallation of rial dware																			
FY 1996 & Prior Eqpt Kits	_								-										
FY 1997 Eqpt Kits		1500		442														1942	
FY 1998 Eqpt Kits																			
FY 1999 Eqpt Kits																			
FY 2000 Eqpt kits																			
FY 2001 Eqpt kits												-							
FY 2002 Eqpt kits										-									
FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost		1500		442														1942	
Total Procurement Cost			0.300																0.300
antendrate the tringitation of the tringitatio	officelland that I de	ş		ADMIN	LAGTO	,	ADMINISTRATIVE EADTINE		0	Months		PODITION I EADTIME	TION	EADT	ii N	<	Months		
Contract Dates:	FY 1997:	7:	Apr-97			FY 1998:	3:					FY 1999:							
Delivery Date:	FY 1997		Jul-97			FY 1998	÷					FV 1999							
Delivery care.																			

FY 1996 R Prior FY 1996 & Prior FY 1997 FY 1999 Outputs		EV 1007	70			i																		
& Prior		2	10			FY 1998	98			FY 1999	g.		Ĺ	FY 2000			ú	FY 2001						
puts 7 1996 & Prior 7 1998 7 1999 1 1999		C)	es)	41	-	C.		4	-	C		4		e	4	-			٧					F
7 1996 & Prior 7 1997 7 1999 7 1999 1 1 1 1 1 1 1 1 1															H	-1								10a
7 1997 7 1998 7 1999 1 puts																								
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7 1999 utputs																								
utputs																								
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	u.	FY 2000			Ŧ	FY 2001			Ŧ	FY 2002			FY 2003	003			FY 2004	304			FY 2005	05		
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Inputs																					1			
FY 2000																								
FY 2001																								
FY 2002																								
FY 2003																								
Outputs																								
FY 2000																								
FY 2001																								
FY 2002																								
FY 2003																								
	The Installation copies for a for all properties in the company of the contract of the copies of the	Schoolile	ie not	Californ	of for thi	- Sipour	- Inchian																	

	INDIVIDUAL MODIFICATION		Date	February 1997
MODIFICATION TITLE:	Modular Weapon System (M4 Carbine) TBD3			
MODELS OF SYSTEMS AFFECTED:	Carbine, 5.56 M4			
DESCRIPTION / JUSTIFICATION:				
The modular weapon is a no tool, to M4 Carbines with ancillary items based upon mission requirements.	The modular weapon is a no tool, field expedient applied system of mounting rails/methods to allow the custom configuration of M4 Carbines with ancillary items such as optics, night sights, IR laser pointers, the grenade launcher, back-up sights, etc., based upon mission requirements.	s/methods to allow the cr the grenade launcher, b	ustom configuration ack-up sights, etc.,	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	EVELOPMENT MILESTONES:	PLANNED	ACCOMPLISHED	
Developmental/Operational Tests	mal Tests		3/4Q95	
Milestone III Production Decision	Decision	2097		
Production Contract Award	ard	3097		
First Production Hardware Delivered	re Delivered	3098		
First Unit Equipped		4098		

Prigge P						QN	INDIVIDUAL MODIFICATION	MODII	FICATIC	Z						D	Date		February 1997	v 1997	
AM. (\$ in Millions) FY 1996 ON \$ CDY \$ C	MODIFICATION TITLE (Cont):		Σ	odular	Weap	ion Sy	stem (M4 C	arbine)) TBD3											
The property of the property	FINANCIAL PLAN: (\$ in Millions)																				
Cay S		FY	1996	7	-00		9														
1,198		of S	- W	À È	/66	1	988	FY 1	66	FY 200	+	FY20	50	FY 20	302	FY 20		1 1	1 1	70	AL
SNT 1000 953 3066 1400 14981 14981 12000 15000 14081 149	RDT&E		1.158		,	9	•	3	9	3	+	3	A	3	A	SE CE	+	À	69	ð	69
1000 953 3066 3	PROCUREMENT																				1.15
State Continue	Quantity			1000	2	953		9906						•			Ť	4981		20000	
Streeturing 0.286 0.050 0.075 0.086 0.050 0.075 0.015 0.015 0.015 0.025	Installation Kits				-		-											2		20000	
0.280 0.276 0.886 0.050 0.075 0.089 0.050 0.075 0.089 0.050 0.075 0.025 0.025 0.033 0.030 0.030 0.030 0.030 0.030 0.035 0.03	Installation Kits Nonrecurring																				
Support	Equipment				0.280		0.276		0.886										4.400		5.84
Sisted Support 0.026	Equipment Nonrecurring																				
Strict Support 0.0025 0.0033 0.0036 0.0036 0.0025 0.0037 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.0038 0.00399 0.0039 0	Engineering Support				0.058		0.050		0.075	-									0.150		0.33
1000 1000	Testing				0.020								-								
Company	Integrated Logistical Support				0.015		0.011		0.030										0.025		90.0
Hardware	Fielding				0.025	_	0.033		960.0										0.280		
tctor Support Hardware Hardware Full Egg L Kills pt - K	Other				_														2		5
Hardware Prior Egpt - Kits pt - Kits	Interim Contractor Support						-						• • • • • • • • • • • • • • • • • • • •								
Hardware for Eggt - Kits p													-							_	
pt - Kits 10000 10000 10000 10000 10000	nstallation of Hardware									•	_										
ptKlis ptKlis ptKlis 3066 1000 ptKlis ptKlis ptKlis 3066 3066 ptKlis ptKlis ptKlis 14981 14981 ptKlis ptKlis ptKlis ptKlis 14981 14981 ptKlis ptKlis ptKlis ptKlis ptKlis ptKlis pnKlis ptKlis ptKlis ptKlis ptKlis ptKlis pnKlis ptKlis ptKlis pt	FY 1996 & Prior Eqpt Kits				_																
pt Kils pt K	FY 1997 Eqpt Kits					1000		-,-	-											000	
pt Kits pt Kits 3066 3066 pt kits pt kits 14981 14981 14981 14981 14981 14981 20000 pt kits	FY 1998 Eqpt Kits					953	***		-		_									0000	
pt kits pt k	FY 1999 Eqpt Kits							3066												3068	
of kits pt k	FY 2000 Eqpt kits																			200	
pt kits pt k	FY 2001 Eqpt kits									-											
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It (xx kits) 1953 3066 1089 14981 14982 14982 14982 14993 14981 14982 14982 14982 14982 14982 14982 14982 14982 144983 144983 144981	FY 2003 Eqpt kits																				
On Cost 1953 3066 1.089 14981 20000 Iment Cost 0.398 0.370 1.089 4.855 4.855 MPLEMENTATION: Unit Application FY 1997: AP 1997: AP 1997: Apr-98 Apr-98 FY 1998: FY 1999: FY 1	(FY(TC) Eqpt (xx kits)																	1981		14981	
Iment Cost 0.398 0.370 1.089 4.855 MPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 6 Months FY 1999: FY 1998: F	otal Installation Cost					1953	•	3066				_	_				14	1981		20000	
MPLEMENTATION: Unit ApplicationADMINISTRATIVE LEADTIME:6 MonthsPRODUCTION LEADTIME:12FY 1997:Apr-98FY 1998:FY 1998:FY 1999:	Total Procurement Cost				966.0	3	.370		.089									4			6.712
FY 1997: May-97 FY 1998: 6 Months PRODUCTION LEADTIME: 12 FY 1999: FY 1997: Apr-98 FY 1998: FY 1999:	ETHOD OF MPI EMENTATION	· Init An	nijoojion		*	CHAIR	1	1													
FY 1997; Apr-98 FY 1998;	Intract Dates:	- L	-Y 1997:		fav-97	ONLINE	2 (1	7 1998.) I IME:			Sums	í	HODUC 11000	TION	EADTIM			ouths		
	Ilivery Date:		₹ 1997:		pr-98		Ĺ	1998:					டம்	7 1999:							

	INDIVIDUAL MODIFICATION		Date	Eahmon 1997
MODIFICATION TITLE:	M4 Improved Buttstock TBD4			oci della di
MODELS OF SYSTEMS AFFECTED:	M4 Carbine, M4A1			
DESCRIPTION / JUSTIFICATION:				
The M4 Improved Buttstock pr stock/cheek weld.	The M4 Improved Buttstock provides the rifleman with features for obtaining the proper shooting form; stock/shoulder weld and stock/cheek weld.	proper shooting form; stoc	k/shoulder weld and	
This program provides the rifle	This program provides the rifleman with an ergonomically optimized buttstock for the M4 Carbine.	r the M4 Carbine.		
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	/ELOPMENT MILESTONES:			
		PLANNED	ACCOMPLISHED	
Milestone III		3097		
Engineering Change Proposal	iosal	1098		
First Production Hardware Delivered		3098		
First Unit Equipped/Materiel Work Order	iel Work Order	4098		

				IQNI	VIDUAL	INDIVIDUAL MODIFICATION	ATION						Date	te		February 1997	1997	
MODIFICATION TITLE (Cont):	2	14 Imp	roved	M4 Improved Buttstock TBD4	ck TB	D4												
FINANCIAL PLAN: (\$ in Millions)	FY 1996	-																
	and Prior	FΥ	FY 1997	FY 1998	86	FY 1999	-	FY 2000	FY;	FY 2001	FY 2002	72	FY 2003	33	TC		TOTAL	1
	Offy \$	ģ	89	Q.	မာ	Offy 8	\$ Oty	\$ A	Oţ	\$	Qty	\$	Qly	\$	αţλ	€	Qf	69
RDT&E	0.377																	0.377
PROCUREMENT												_						
Quantity				10,000	.,	37,300							-				47,300	
Installation Kits																		
installation Kits Nonrecurring					Ī		•	_				_				• • • •		
Equipment					0.400	=======================================	1.500											1.900
Equipment Nonrecurring	***															•		
Engineering Support					0.150	o	0.100										-	0.250
Testing																-		
Integrated Logistical Support					0.100													0.100
Fielding																		
Other															•			
Interim Contractor Support					<u>.</u>							-					-	

Installation of Hardware					···													
EV 1996 & Prior Fant Kits																		
EV 1997 Earl Kits																		
EV 1008 Earl Kite				10.000													10.000	
FY 1999 Fort Kits						37,300								-		•	37,300	
FY 2000 Eapt kits												٠,						
FY 2001 Eqpt kits										***								
FY 2002 Eqpt kits																		•
FY 2003 Eqpt kits																		
(FY(TC) Eqpt (xx kits)																		
Total Installation Cost				10,000		37,300							-				47,300	
Total Procurement Cost					0.650	1.	1.600						_					2.250
					1407		Ĺ	,			CAPTION	T NOIT	EANTIN	Ú	1	dian		
METHOD OF IMPLEMENTATION: Unit Application	V: Unit Abbilcati			YOM IN	וארוס	ADMINISTRATIVE LEAD TIME:		70-1-07	O7	'n	FY 1999	2017				MOTILIS		
Contract Dates:	FY 1997.	.7.			_ u	EV 1998.		Apr-98	760		FV 1999.							
Delivery Date:	5					1000		į	20							١]

Installation Schedule:	ule: MA Improved Buttetook TDDA	200																
		400									Date		Feb	February 1997	7			
	FY 1996 FY 1997		FY 1998			FY 1999	66		Œ	FY 2000			FY 2001	100				
	& Prior 1 2 3 4	-	23	41		C#	(N	4 1	O.	ന്	41	→ i	O.	m	4			Total
Inputs																		
FY 1996 & Prior																		
FY 1997																		
FY 1998																		
FY 1999																		
Outputs																		
FY 1996 & Prior																		
FY 1997																		
FY 1998																		
FY 1999																		
		i																
	FY 2000	Ţ	FY 2001		_	FY 2002			FY 2003	003			FY 2004			FΥ	FY 2005	
4	1 2 3 4	-	2	3 4	-	Q	က	4	_	2 3	4	-	Ø	က	4	-	2 3	4 Total
Inputs																		
FY 2000																		
FY 2001																		
FY 2002																		
FY 2003																		
Outputs																		
FY 2000																		
FY 2001																		
FY 2002																		
FY 2003																		
Remarks:	The installation schedule is not required for this modification.	ed for thi	s modifica	ıtlon.														



						DATE		
	BUE	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET		February 1997		
APPROPRIATION / BUDGET ACTIVITY	TIVITY			P-1 ITEM NOMENCLATURE	111			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	HS /Weapons and Other Co	embat Vehicles			MEDIUM MACHINE GL	MEDIUM MACHINE GUNS (MODS) (GZ1300)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	6.3	0.0	0.0	0.0	0.0	0.0	0:0	0.0
							The second secon	

DESCRIPTION: The M240B, 7.62mm Machine Gun is the ground mounted version of the basic M240 Armor Machine Gun. An initial procurement will utilize government owned M240 assets converted to M240B ground mounted machine guns. The conversion requires the installation of a buttstock, front and rear sights, bipod legs, a barrel change handle, heatshield, replacement of the top feed cover, the pistol grip with trigger mechanism and charging handle. Also minor machining of the operating rod is required. Extensive operational and technical testing has demonstrated exceptionally high reliability for this weapon system.

competitive technical and operational testing of the M240B and an improved M60 model machine gun, the Army selected the M240B to satisfy its JUSTIFICATION: The US Army established a requirement for an 7.62mm medium machine gun with improved reliability. Following extensive 7.62mm medium gun requirement.

MEDIUM MACHINE GUNS (MODS) (62/300)	ON SH	DA'I
	THOCOURTMENT OF WITHOUT OF THE COMPANY OF THE COMPA	MEDIUM MACHINE GUNS (MODS) (C

OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
TBD1	Medium Machine G	aun Upgrade Kits						
Operational	6.3 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
The second secon								
					The state of the s			
			· Parada					



	Ž	ODIFICA	MODIFICATION INSTALLATION SUMMAR Date	STALLA	TION SI	JMMAF	Date	February 1997	
			(TOA, Dollars in Millions)	ollars in f	Aillions)			, in the second	
	ă						-	2000	14 10 1
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	EY 2000	FY 2001	FY 2002	EY 2003	TOTAL
No P3s Set for modification MEDIUM MACHINE GUNS (MODS) GZ1300 Medium Machine Gun Upgrade Kits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Medium Machine Gun Upgrade Kits TBD1		
MODELS OF SYSTEMS AFFECTED:	M240, 7.62mm Machine Gun M122 Tripod		
DESCRIPTION / JUSTIFICATION:			

DESCRIPTION: The M240B, 7.62mm Machine Gun is the ground mounted version of the basic M240 Armor Machine Gun. An initial procurement front and rear sights, bipod legs, a barrel change handle, heatshield, replacement of the top feed cover, the pistol grip with trigger mechanism and will utilize government-owned M240 assets converted to ground mounted machine guns. The conversion requires the installation of a buttstock, charging handle. Also minor machining of the operating rod is required. Extensive operational and technical testing has demonstrated exceptionally high reliability for this weapon system.

competitive technical and operational testing of the M240B and an improved M60 model machine gun, the Army selected the M240B to satisfy its JUSTIFICATION: The US Army established a requirement for an 7.62mm medium machine gun with improved reliability. Following extensive 7.62mm medium aun reauirement.

Development Test and Evaluation Initial Operational Test and Evaluation Type Classification Production Contract Award First Production Hardware Delivered	PLANNED A	ACCOMPLISHED 4Q95 3Q95 3Q96
First Unit Equipped	4097	

ification

Nu TITLE (Cont): Nedium Machine Gun Upgrade Kits TBD1 LAN: (\$ in Millions) FY 1996 And Pior FY 1996 FY 1997 FY 1996 FY 2000 FY 2001 FY 2002 Gay \$ Gy \$ Gy \$ Gy \$ Gy \$ Gy \$ Gy \$ Gy \$ G				٤	ADDIVIDUA	INDIVIDUAL MODIFICATION	CATION						Date			February 1997	
Cay	MODIFICATION TITLE (Cont):	2	/ledium Ma	chine	Gun Up	grade Ki	its TBD	_									
FY 1997 FY 1998 FY 1999 FY 2000 FY 2001	FINANCIAL PLAN: (\$ in Millions)	2007.7.1															
25		and Prior	FY 1997	F	1998	FY 199	-	-Y 2000	FY	2001	FY 20	102	FY 2003	3	70	Ĺ	TOTAL
25 50 50 50 60 1200 26 31 420 420 420 420 420 420 420 420 420 420		Н		Qt		Offy	G		Qţ	\$	Qţ	8	Oth	Н	Oty \$	ğ	€
25 50 50 50 50 1200 997: FY 1998:	RDT&E	1.902															1.902
25 50 50 50 120 1200 92 1200 1200 1200 1200 1200 1	PROCUREMENT								_					-			
25 50 50 50 1200 1200 927 1200 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Kit Quantity	1200														1200	0
25 50 26 91 1200 92 1200 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Installation Kits														11.1.		
25 50 50 50 1200 1200 4 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Installation Kits Nonrecurring																
1200 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Equipment	4.725															4.725
50 26 91 1200 1200 92 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Equipment Nonrecurring																
1200 1200 1200 1200 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Engineering Support	0.350															0.350
1200 1200 1200 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Testing	0.250															0.250
1200 1200 1200 92 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Integrated Logistic Support	0.050															0.050
1200 1200 1200 92 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Fielding	0.326															0.326
1200 1200 92 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Other - Engineering Studies	0.591															0.591
1200 1200 92 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Interim Contractor Support																
1200 1200 92) ADMINISTRATIVE LEADTIME: 6 Months FY 1998:																	
1200 1200 92] ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	Installation of Hardware								····								
1200	FY 1996 & Prior Eqpt Kits		1200		_											1200	0
1200	FY 1997 Eqpt Kits											_					
1200	FY 1998 Eqpt Kits			***													
1200 92 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	FY 1999 Eqpt Kits																
1200 92 ADMINISTRATIVE LEADTIME: 6 Months FY 1998:	FY 2000 Eqpt kits																
1200	FY 2001 Eqpt kits																
1200	FY 2002 Eqpt kits			-													
1200	FY 2003 Eqpt kits			_													
1200	(FY(TC) Eqpt (xx kits)																
92 ADMINISTRATIVE LEADTIME: 6 Months 6 997: FY 1998:	Total Installation Cost		1200											_		1200	0
ADMINISTRATIVE LEADTIME: 6 Months 997: FY 1998:	Total Procurement Cost	6.292					+	_					_				6.292
997: FY 1998:	METHOD OF IMPLEMENTATION:	: Contractor		ADM	NISTRAT	IVE LEAD	TIME	φ	Month	so.	PRODU	CTION	EADTIM		9 Months	ths	
[22, 07] EV 1007:	Contract Dates: May-96	FY 199	77:			FY 1998:					FY 1999						
Call-9/ 11 1997.	Delivery Date: Jan-97	FY 1997:	.24:			FY 1998:					FY 1999:						

Installation Schedule:		Medium Machine Gun Upgrade Kits TBD1	ne Gu	n Upg	rade K	its TB	D1							Date	œ.		February 1997	1997					
	FY 1996	FY 1997	26		Ĺ	FY 1998			FY 1999	666			FY 2000	0		Ĺ	FY 2001						
	& Prior 1	ત્ય	ന	4	1 2	K	41		⊘ i	m	41		CVI	6	4	2	က	4					Total
Inputs																						1	
FY 1996 & Prior	1200																						1200
FY 1997																							
FY 1998																							
FY 1999																	-						
Outputs																							
FY 1996 & Prior		009	009																				1200
FY 1997																							
FY 1998																							
FY 1999																							
		FY 2000			FY 2001	100			FY 2002	O.		F	FY 2003			FY 2004	204			FY 2005			
	-	8	က	4	_	N	3 4	-	N	က	4	-	8	ဗ	4	1 2	2	4	-	ø	က	4	Total
Inputs																							
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FY 2003																							
Outputs																							
FY 2000																~							
FY 2001																							
FY 2002																							
FY 2003																							
Remarks:																							



ACTIVITY ACTIVITY		CODE "B" ITEM DI	M DESCRIPTION	DATE Februa	February 1997	REPO	REPORT CONTROL SYMBOL DD-COMP(AR)1092	MBOL 2
### Weapons and Other Combat Vehicles MEDIUM MACHINE GUNS (MODS) (GZ1300) MEDIUM MACHINE GUNS (MODS) (GZ1300) MEDIUM MACHINE GUNS (MODS) (GZ1300) MEDIUM MACHINE GUNS (MODS) (GZ1300) MANY-95 MANY	APPROPRIATION		АСПИІТУ	P-1 ITEM NOMEN	CLATURE			
CURRENT LAST RPTD REASON FOR DELAY. CURRENT LAST RPTD REASON FOR DELAY. CURRENT LAST RPTD REASON FOR DELAY. COLOR	PROCUREMENT OF W	IPNS & TRKD CMBT VEHS	Weapons and Other Combat Vehicles		MEDIUM MA(CHINE GUNS (MOI	OS) (GZ1300)	
#NA TO BE REPLACED #INON COMPONENT CASO CASO	1. CURRENT DEVELOPMENT AND	TEST STATUS						
CURRENT LAST RPTD REASON FOR DELAY. (1) (2) (3) (3) (4) (4) (4) (5) (4) (5) (5) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7						SCHEDULE DATE		
Aug-95 PLAN / ACTUAL				CURRENT	LAST RPTD	. H	ASON FOR DELA	الم.
# PLAN / ACTUAL May-95 PLAN / ACTUAL NA # PLAN / ACTUAL NA # PLAN / ACTUAL NA # PLAN / ACTUAL NA # PLAN / ACTUAL NA # PLAN / ACTUAL NA # PLAN / ACTUAL NA ## PLAN / ACTUAL				(1)	(2)		(3)	
#ELAN / ACTUAL NIA May-95 NIA	a. DEV TEST & EVAL (DT&E)		PLAN / ACTUAL	Aug-95				
### TO BE REPLACED a30.96 mounted roles mounted roles mounted roles mounted roles mounted roles mounted roles mounted roles a10.96 a10.90 a10.130	b. INITIAL OPER TEST & EVAL (101	T&E)	PLAN / ACTUAL	May-95				
#ENT TO BE REPLACED AITON COMPONENT THROUGH 1996 1997 (6) (7) SC M240 Machine Gun Upgrade 0.130 (6) (7) SC M300 Machine Gun Upgrade 0.260 (0.000 0.000 0.000	c. OPER TEST & EVAL (OT&E)		PLAN / ACTUAL	N/A				
### TO BE REPLACED Jail of 300% ATION COMPONENT (3) SC MEA40 Machine Gun Upgrade MEO Machine Gun Upgrade MEO Machine Gun Upgrade 0.130 6 MEO Machine Gun Upgrade 0.260 0.000 0.000 0.000 0.000 0.000	d. AVAIL DATE OF TECH DATA PK(з (тоР)						
#ENT TO BE REPLACED ALTION COMPONENT ATTON COMPONENT THROUGH 1996 (4) SC ME40 Machine Gun Upgrade 0.130 E M50 Machine Gun Upgrade 0.260 0.000 0.000 0.000 0.000	OR PERFORMANCE SPECIFICA'	SNOIL						
Seco, Me Miso Machine Gun Upgrade Component Compon	2. ESTIMATED DATE OF APPROVA	AL FOR SERVICE USE	3Q96					
OF EQUIPMENT TO BE REPLACED with a goal of 300% THROUGH 1996 1997 1998 1999 ANT LOCATION COMPONENT THROUGH 1996 1997 1998 1999 Columbia, SC M240 Machline Gun Upgrade 0.130 (5) (6) (7) Sacc, Me M60 Machline Gun Upgrade 0.260 0.000 0.000 0.000	3. Equipment frem(s) to be Hei M60, 7.62mm Machine Gun	PLACED n in certain ground mounted r	oles					
COMPONENT THROUGH 1996 1997 1998 1999 1	 EXTENT OF IMPROVEMENT OV Reliability increase of 100% 	or equipment with a goal of	REPLACED %					
ME PLANT LOCATION COMPONENT THROUGH 1996 1997 1998 1999 VAL (2) (3) (4) (5) (6) (7) VAL Columbia, SC M240 Machine Gun Upgrade 0.130 (6) (7) c. Saco, Me MS0 Machine Gun Upgrade 0.260 (6) (7) c. Saco, Me MS0 Machine Gun Upgrade 0.260 0.000 0.000	5. DEVELOPMENT CONTRACT INF	*ORMATION						
AAL Columbia, SC Machine Gun Upgrade 0.130 Saco, Me M60 Machine Gun Upgrade 0.260 O.260 O.260 O.260 O.260 O.260 O.260 O.260 O.260 O.260 O.260 O.260 O.260	CONTRACTOR NAME	PLANT LOCATION (2)	COMPONENT (3)	THROUGH 1996		1998	1999	BEYOND BYS (8)
c. Saco, Me MisO Machine Gun Upgrade 0.260	FABRIQUE NATIONAL	Columbia, SC	M240 Machine Gun Upgrade	0.130				
0.000 0.000 0.000	SACO Defense Inc.	Saco, Me	M60 Machine Gun Upgrade	0.260				
0,000 0,000 0,000								
	TOTAL RDT&E FUNDING			0.390	0.000	0.000	0.000	0.000
	* Reference entries on attachment to	P-19 if additional space is required	• Reference entries on attachment to P-19 if additional space is required to adequately explain delay from previous date.					

						DATE		
	BUC	BUDGET ITEM JUSTI	TIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	ш			
PROCUREMENT OF	WPNS & THKD CMBT VE	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	mbat Vehicles			M119 MODIFICA	M119 MODIFICATIONS (GC0401)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0

DESCRIPTION: Light Artillery System Improvement Plan (LASIP) for the 105mm, M119A1 Light, Towed Howitzer

maintainability (RAM), and providing solutions to requests for minor operational enhancements. The LASIP was developed by the M119A1 Howitzer Improvement Team (HIT), chartered specifically to respond to improvements requested by field artillery units, the U.S. Army Field Artillery School The Light Artillery System Improvement Plan (LASIP) initiates this process by correcting known deficiencies, improving reliability, availability and nondevelopmental item (NDI) with growth potential. Now that 413 M119A1 howitzers have been fielded, it is time to realize that growth potential. JUSTIFICATION: The 105mm M119A1 Light, Towed Howitzer was selected as the weapon of choice for the light forces because it was a (USAFAS) and the U.S. Army Training and Doctrine Command (TRADOC).

n Sheet thibit P-40

Budget Item Jus

BUDGET ITEM JUSTIFICAT APPROPRIATION / BUDGET ACTIVITY PROCUREMENT OF WPINS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles

		HALLAII	ON SOL	MMARY			Date		
			(TOA Dollars in Millions)	lare in	Millione			February 1997	397
	řá:	_	5	5 10 10	(ellollin)				
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
No P3a Set for modification	*								
GC0401									
Block 1 Upgrade	0.0		0.0	0.7	0.2				_
Block 2 Upgrade	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.3	0.7
Totals	0.0	0.0	0.0	0.7	0.2	0.2	0.4	0.3	1.9

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE: Block 1 Upgrade	ograde TBD1		
MODELS OF SYSTEMS AFFECTED: Howitzer, Light 1	Light Towed, 105mm M119A1 (Mod)		

DESCRIPTION / JUSTIFICATION:

clearances for the clevis pins on the rear firing stays of the firing platform make it very difficult to attach the stays to the trail during emplacement. systems when Operational Mode Profile (OMP) is factored in. Upgrade Cam Follower Arm; Preventing damage to the cam follower will improve reliability, availability and maintainability while reducing Operating and Support costs (OSCR). Improve Firing Stays; The design and mounting Upgrade M187 1-94-05-7911; The M119A1 indirect fire control system fails approximately 14 times more often than other hardware fire control Retrofit Low Temp Recuperator 1-90-05-7875; The seals function only to temperature of -25F not the -50F. Improve Indirect Fire control; attach the stays to the trail when preparing for towing Redesign Rammer/Extractor Tool; The rammer/extractor tool currently issued was "borrowed" from the M102 Howitzer which required the base of the primed cartridge be forcefully struck by a hard rubber plunder. Improve Traveling Stays; The design and mounting clearances for the clevis pins on the traveling stays make it very difficult to

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:			
Validate Materiel change (MC)	LAMMED	3Q90	
Critical Design Review:		3091	
Complete testing of Prototype		3092	
Release Technical Data Package (TDP)		1093	
Award Contract for Modification (MOD) Kits	2098		
Deliver First Mod Kit	1099		
First Unit Equipped (FUE)	2099		
Deliver Last Mod Kit	2001		
Last Unit Equipped	3001		

MODIFICATION TITLE (Cont):	Ш	3lock 1	Upgra	Block 1 Upgrade TBD1	-													
FINANCIAL PLAN: (\$ in Millions)	FY 1996	-																
	and Prior	FY 1997	266	FY 1998	86	FY 1999	\vdash	FY 2000		FY 2001	F	FY 2002	FΥ	FY 2003	1	70	TOTAL	AL
	Ofy \$	ð	€9	Qţ	69	ŧ	о \$	Ofy	8	S A	ਰੇ	69	ð	49	δţ	€	οţ	69
HOLSE PROCUREMENT Kit Quantity				140	- 11-	140		145			2						405	
Installation Kits Nonrecurring						2		2		•							2	
Equipment			•••		4.2		3.4		3.9									11.5
Equipment Nonrecurring					0.0		0.0		0.0									0.0
Engineering Change Orders					0.2		0.1		0.0									0.3
Engineer Support					0.3		0.5		0.5									1.3
Other					0.2		0.3		0.3									0.8
Testing					0.0				0.0									0.1
Fielding					0.0		0.0		0.0									0.0
Interim Contractor Support																		
Installation of Hardware																		
FY 1996 & Prior Eqpt Kits																		
FY 1997 Eqpt Kits																****		
FY 1998 Eqpt Kits	<u>-</u>					140											140	0.7
FY 1999 Eqpt Kits						22	0.0		0.2								140	0.5
FY 2000 Eqpt Kits FY 2001 Eqpt Kits								4		101	0.2						145	0.5
FY 2002 Eapt kits			*****															
FY 2003 Eqpt kits																		
(FY(TC) Eqpt (xx kits)				+														
Total Installation Cost						162	0.7	162	0.2	101	0.2						425	1.1
Total Procurement Cost					2.0		2.0		5.0	0	0.2							15.1
METHOD OF IMPLEMENTATION: Unit Application	: Unit Applicat		1	ADMINISTRATIVE LEADTIME:	TRATIV	E LEAD	TIME:	9	6 Months	sth	PRO	PRODUCTION LEADTIME:	N LEAD	TIME:	9	Months		
Contract Dates:	FY 1997:		Multiple		ÍL.	FY 1998:		ME	Multiple		FY 1999:	FY 1999:	2	Multiple				



Installation Schedule: Blo	Block 1 Upgrade TBD1	TBD1											Date		Fet	February 1997	76					
5	FY 1997			FY 1998	968		ш	FY 1999			F	FY 2000			FY 2001	100						
& Prior	1 2 3	41	-1	CI	(c)	4	1 2	(C)	41	-	αı	ro;	41	-	C)	ଚ	4				입	Total
Inputs																						
FY 1996 & Prior																						
FY 1997																						
FY 1998							35	35	35 3	35												140
FY 1999									CU	22 30	0 30	30	28									140
Outputs																						
FY 1996 & Prior																						
FY 1997																						
FY 1998								35	35	35 35	2											140
FY 1999										22	2 30	30	30	28								140
	FY 2000			FY 2001	_		F	FY 2002			FY 2003	903			FY 2004	4		_	FY 2005			
		8	4	61	ო	4	-	N	ဗ	4	-	2 3	4	_	2	ဗ	4	-	2	ဗ	4 IS	Total
Inputs																						
FY 2000	N	22 22	2 50	51																		145
FY 2001																						
FY 2002																						
FY 2003					-																	
														٧,								
Outputs																						
FY 2000		લ	22 22	20	51									-								145
FY 2001																						
FY 2002																						
FY 2003																			•			
Remarks:																						

Multiple contract and delivery dates indicated on page 4 are the result of unknown multiple contractors at this time. When contractors are chosen and delivery dates are set, P-Forms will be updated as needed.

	INDIVIDUAL MODIFICATION	Enhance 1007
		editaly 1991
MODIFICATION TITLE:	Block 2 Upgrade TBD2	
MODELS OF SYSTEMS AFFECTED:	Howitzer Light Towed, 105mm, M119A1 (Mod)	
DESCRIPTION / JUSTIFICATION:		

Brake system; The system required a special production run by the British manufacturer. The brakes also use asbestos brake linings and require Improve Adjustable connecting Rod; The current design suffers from water entrapment which leads to corrosion and binding of the spring. Modify cross country movement and is highly susceptible to damage during tactical operations. Modify firing Platform; The position makes deployment a collar to lock out the lunette when backing up. Upgrade Elevating Handwheel; It is the limiting factor in the system's departure angle during Due to limited clearance, the user has requested trail lifting handles to design. Improve Direct Fire Scope; Improving the direct fire scope will of the howitzer difficult, as the firing platform must be disengaged from its stowage brackets, lifted manually from the trail, carried completely clear of the trail and placed on the ground before the howitzer can be rolled into its firing position. Add Trail Lifting Handles; provide night capability. Improved accuracy and internal boresighting.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	171		
Validate Materiel Change (MC)	PLANNED	ACCOMPLISHED 3Q94	
Critical Design Review:	10.98		
Complete testing of Prototype	2098		
Release Technical Data Package (TDP)	4098		
Award Contract for Modification (MOD) Kits	1099		<i>3.0</i> 2
Deliver First Mod Kit	1902		
First Unit Equipped (FUE)	2002		
Deliver Last Mod Kit	2004		
Last Unit Equipped	3004		

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				N.	IVIDUA	L MODI	INDIVIDUAL MODIFICATION	z						O	Date		February 1997	1997	
MODIFICATION TITLE (Cont):	B	lock 2	Upgra	Block 2 Upgrade TBD2	302														
FINANCIAL PLAN: (\$ in Millions)	FY 1996																		
	and Prior	FΥ	FY 1997	FΥ	FY 1998	FY 1999	666	FY 2000	00	FY 2001	10	FY 2002	25	FY 2003	03	TC		TOTAL	يـا
	Qty \$	Off	€9	ğ	69	Qly	s	Qfy	ક	Q Q	€9	οţο	69	QÎŞ	69	Q Ş	69	Qţ	69
RDT&E																			
PROCUREMENT														11					
Kit Quantity							-			140		140		145				425	
Installation Kits														T					
Installation Kits Nonrecurring																	.,		
Equipment											3.9		3.8		3.6				11.3
Equipment Nonrecurring											0.1		0.0		0.0				0.2
Engineering Change Orders							_			-	0.1		0.1		0.2				0.3
Engineering Support											4.0		0.5		0.8				1.7
Other							-				0.2		0.2		0.1				0.5
Testing	-										0.0		0.0		0.0				0.0
Fielding											0.0		0.0		0.0				0.0
Interim Contractor Support																			
												-							
Installation of Hardware												-							
FY 1996 & Prior Eqpt Kits							,												
FY 1997 Eqpt Kits						-													
FY 1998 Eqpt Kits									_							-			
FY 1999 Eqpt Kits									_										
FY 2000 Eqpt kits																			
FY 2001 Eqpt kits												140	0.3					140	0.3
FY 2002 Eqpt kits												22	0.0	118	0.2			140	0.3
FY 2003 Eqpt kits														44	0.1	101	0.3	145	0.4
· (FY(TC) Eqpt (xx kits)											\exists								
Total Installation Cost												162	0.4	162	0.3	101	0.3	425	1.0
Total Procurement Cost											4.8		5.0		5.0		0.3		15.0
METHOD OF IMPLEMENTATION: Unit Application	Unit Applicati	o		ADMIN	ISTRAI	TVE LE	ADMINISTRATIVE LEADTIME:		9	Months	1	PRODUCTION LEADTIME:	TION	-EADTI	ζĒ	9	Months		
Contract Dates:	FY 1997:	: .	Multiple	<u>o</u> a		FY 1998: FY 1998:	 .~	Z 2	Multiple		щи	FY 1999: FY 1999:		N N	Multiple				
Delivery Date:	201 -		in Carlo			200			and in) in	oud in				

Inputs

Remarks:

FY 2003

Outputs

Inputs

Multiple contract and delivery dates indicated on page 7 are the result of unknown multiple contractors at this time. When contractors are chosen and delivery dates are set, P-Forms will be updated as needed.



						DATE		
	BND	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	YTIVI			P-1 ITEM NOMENCLATURE	127			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Olher (4S /Weapons and Other Co	Sombat Vehicles			M16 RIFLE M	M16 RIFLE MODS (GZ2800)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	2.8	5.5	7.6	7.1	0.0	0.0	0.0	0.0
	The second secon	1	The second secon					

M16A2 Rifle, The modular weapon allows the custom configuration of the M16 rifles with accessories and smaller items. i.e. optics, night sights, 30 round aluminum magazine. The M16 Rifle Modifications Program provides a close combat optic and a modular weapon system suite for the DESCRIPTION: The M16 family of rifles is a gas operated, magazine fed, selective rate and shoulder fired weapon. It is fed by a laser pointers, based on mission requirements. JUSTIFICATION: The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a key component of Land Warrior Lethality and allows the combat commander to custom configure weapons based upon the mission.

APPROPRIATION / BUDGET ACTIVITY	EET P-11TEM NOMENCLATURE	February 1997
PROCUREMENT OF WPNS & TRKD CMBT VEHS / Weapons and Other Combat Vehicles		M16 RIFLE MODS (GZ2800)

OSIL INO.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
BD1	Close Combat Optics M16	M16						
Operational	2.8	2.0	3.4	2.3	0.0	0.0	0.0	0.0
BD2	Modular Weapon System	tem						
Operational	0.0	3.5	4.2	4.7	0.0	0.0	0.0	0.0
3D3	M16A1 to M16A2 Cor	rversion						
Operational	35.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	38.1	5.5	7.6	7.1	0.0	0.0	0.0	0.0



								Cohrush 1007	
			(TOA, Dollars in Millions)	ollars in	Millions)	_		Ser dispersion in the service of the	
Svetom Madifination	EV 1996	EV 1007	EV 1000	EV 1000	בע מטטט	EV 2004	EV 2002	EV 2002	TOTAL
Ale Doe Cod for modification	*	7	200	7001	2002	1	2000	7777	10101
M16 RIFLE MODS									
GZ2800									
Close Combat Optics M16	0.0				0.0	0.0	0.0	0.0	0.0
Modular Weapon System	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M16A1 to M16A2 Conversion	10.0				0.0	0.0	0.0	0.0	10.0
	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0

INDIVIDUAL MODIFICATION Date February 1997	Close Combat Optics M16 TBD1	STEMS AFFECTED: M16A2 Rifle, XM68 Sight Reflex, XM196 Sight Mount	ESCRIPTION / JUSTIFICATION: The XM68 Sight will be installed on the M16A2 Rifle with the XM196 Mount.	The Close Combat Optic allows the soldier to fire his weapon with both eyes open allowing greater awareness of events happening in close proximity to the soldier and improves hit probability in daylight, low light level, wet weather and other adverse conditions.	DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: PLANNED ACCOMPLISHED	Development/Operational Test	Type Classification 4Q96	Production Contract Award	First Production Hardware Delivered	First Unit Equipped	
	MODIFICATION TITLE:	MODELS OF SYSTEMS AFFECTED:	DESCRIPTION / JUSTIFICATION: The XM68 Sight will be ins	The Close Combat Optic happening in close prox	DEVELOPMENT STATUS / MAJ	Development/Ope	Type Classification	Production Contra	First Production h	First Unit Equippe	



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MODIFICATION TITLE (Cont):		ဗ္ဗ	Close Combat	nbat (Optics M16 TBD1	M16 T	BD1												
FINANCIAL PLAN: (\$ in Millions)	EV 1006	[
	and Prior		FY 1997	7	FY 1998		FY 1999	-	FY 2000	F	FY 2001	FY:	FY 2002	FY 2003	003	TC		TOTAL	AL
	Qty	-	Offy	5	Qfy	G	Oty \$	0	\$	ğ	49	Q.	69	Qf	69	Q	€9	Q	€9
RDT&E	+	1.469																	1.469
PROCUREMENT					1		_												
Quantity	8,964	-	7,264	_	11,520	7,	7,705											35,453	
Installation Kits				-															
Installation Kits Nonrecurring																			
Equipment	ςi -	2.241	-	1.816	m	3.168	2.1	2.119											9.344
Equipment Nonrecurring	-																		
Engineering Change Orders							<u></u>										_		
Engineering Support	0	0.300	0	0.140	0	0.132	0.139	39											0.711
Testing	Ö	0.150	0	0.050	0	0.050	0.050	20											0.300
Integrated Logistical Support	Ö	0.030	Ó	0.020	0	0.020	0.020	20											0.090
Fielding	0	0.030	0	0.020	0	0.020	0.020	20											0.090
Interim Contractor Support																			
Installation of Hardware																			
FY 1996 & Prior Eqpt Kits	****	w	8,964															8,964	
FY 1997 Eqpt Kits			7,264					_										7,264	
FY 1998 Eqpt Kits					11,520		-											11,520	
FY 1999 Eqpt Kits						7,	7,705											7,705	
FY 2000 Eqpt kits							1												
FY 2001 Eqpt kits																			
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits)		+		+	+	+			1										
Total Installation Cost		-	16,228	-	1,520	7,	7,705											35,453	
Total Procurement Cost	2.	2.751	c)	2.046	3	3.390	2.348	48	_										10.535
METHOD OF IMPLEMENTATION; Unit Application	: Unit Appli	cation		¥	LSINIMC	PATIVE	ADMINISTRATIVE LEADTIME:	E S	-	Months	SI	PRODI	UCTIO	PRODUCTION LEADTIME:	E E	ro.	Months		
Contract Dates: Aug-96	F	FY 1997:				Ŧ!	FY 1998:					FY 1999:							
Delivery Date: Dec-96	F	FY 1997:				FY	FY 1998:					FY 1999:					i		

Installation Schedule: Clos	Close Combat Optics M16 TBD1	Dat O	ptics	W16T	BD1									Date	6		Februa	February 1997					
FY 1996	ــــــــــــــــــــــــــــــــــــــ	FY 1997			F	FY 1998			FY 1999	660			FY 2000			Ī	FY 2001	_					
& Prior	-	6	4	-	C	က	4	-	, cu	m	4	-	. 2		4	-		4					Total
Inputs						İ	ı	i	i	í													4
FY 1996 & Prior																							
FY 1997																							
FY 1998																							
FY 1999																							
Outputs																							
FY 1996 & Prior			•																				
FY 1997																							
FY 1998																							
FY 1999																							
	¥	FY 2000			EV 2004	7			EV 2002			2	EV 2003			<u> </u>	V 2004			EV 2006	<u> </u>		
	-		ဗ	4	1 2	က	4	_	2		4	-	8 2	ဗ	4	-	2	က	4	-		က	4 Total
Inputs																							
FY 2000																							
FY 2001																							
FY 2002																							
FY 2003																							
Outputs																							
FY 2000																							
FY 2001																							
FY 2002																							
FY 2003	,																						
Remarks:																							

Item No. Rage 6 of 12

Exhibit P-3a Individu

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	INDIVIDUAL MODIFICATION		Date	February 1997
MODIFICATION TITLE:	Modular Weapon System TBD2		,	
MODELS OF SYSTEMS AFFECTED:	Rifle, 5.56mm M16A2			
DESCRIPTION / JUSTIFICATION:				
The modular weapon is a syst and ancillary items such as op the field, without tools.	The modular weapon is a system of mounting rails/methods that allows the custom configuration of M16 Rifles with accessories and ancillary items such as optics, night sights, IR laser pointer, the grenade launcher, back-up sights, etc., based upon mission requirements in the field, without tools.	m configuration of M16 Rif cher, back-up sights, etc.,	les with accessories based upon mission re	equirements in
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES:	PLANNED	ACCOMPLISHED	
Devel	Developmental/Operational Tests		3/4Q95	
Milest	Milestone III Production Decision	2097		
Produ	Production Contract Award	3Q97		
First F	First Production Hardware Delivered	3098		
First L	First Unit Equipped	4098		

MODIFICATION TITLE (Cont):		Ž	odular	Wear	Modular Weapon System TBD2	stem	TBD2												
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966																	
	and Prior	rior	FY 1997	266	FY 1998	398	FY 1999	66	FY 2000	0	FY 2001	H	FY 2002	FY	FY 2003	F	2	TOTAL	LAL
	ğ	49	Q Ş	69	Q	69	Oth	€9	Oty	\$	Oth	5	k)	Q.	69	Ş	69	Off	49
RDT&E PROCLIREMENT		1.158																	1.158
Quantity			6,300		8,113		9,333									9 254		33 000	
Installation Kits																0,40		000	
installation Kits Nonrecurring									-		-								
Equipment				2.749		3.673		4.242									4.200		14.864
Equipment Nonrecurring																			
Engineering Support				0.333		0.210	_	0.235									0.250		1.028
Testing				0.130															0.130
Integrated Logistical Support				0.070		0.075		0.075									0.025		0.245
Fielding				0.198		0.255	_	0.180				_					0.172		0.805
Other				Ī															
Interim Contractor Support													<u>.</u>						
installation of Hardware						,													
FY 1996 & Prior Eqpt Kits																			
FY 1997 Eqpt Kits					6,300													6,300	
FY 1998 Eqpt Kits							8,113											8,113	
FY 1999 Eqpt Kits								5	9,333									9,333	
FY 2000 Eqpt kits																			
FY 2001 Eqpt kits						•													
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits										_		-							
(FY(TC) Eqpt (xx kits)																9,254		9.254	
Total Installation Cost					6,300		8,113	6	9,333		-					9,254		33,000	
Total Procurement Cost				3.480		4.213	`	4.732		H							4.647		17.072
METHOD OF IMPI EMENITATION: Hall Application	- I lail Ans	dollardi		•	DIMINIO	TOAT	ADMINISTRACTIVE	TIME			1		Cito	1	Į.				
Contract Dates:	2. T	FY 1997:		Mav-97	7	7	FY 1998:			2	SOUTH	FY 1999:	FRODUCTION LEADTIME: FY 1999:	IN LEAD	 	Z	Months		
	L	-																	



	1.1	9								100		Eshinson 1997	1007				
odular v	stem in	שטכ	5		1	9		2		200		V 2004					
FY 1997		6			6				FY 2000			N N					FotoF
& Prior 1 2 3	4	C)	අ	- 	CI	(N)	4	CVI	roj	41	., .,	Kr.	4 1				loial
Inputs																•	
FY 1996 & Prior																	
FY 1997																	
FY 1998																	
FY 1999																	
atiding																	
77 1990 & PHOT																	
166																	
FY 1998																	
FY 1999																	
FY 2000		FY 2001		-	FY 2002	-0		FY 2003	603		Ŧ	FY 2004		Ŧ	FY 2005		
1 2 3	4	L 2	e	4	0	က	4	1 2	က	4	-	8	3 4	-	N	e	4 Total
Inputs																	
FY 2000																	
FY 2001																	
FY 2002																	
FY 2003																	
								,									
Outputs																	
FY 2000																	
FY 2001								٠									
FY 2002																	
FY 2003																	
Remarks:																	

	INDIVIDUAL MODIFICATION		Date	February 1997
MODIFICATION TITLE:	M16A1 to M16A2 Conversion TBD3			
MODELS OF SYSTEMS AFFECTED:	Rifle 5.56mm M16A1 to M16A's			
DESCRIPTION / JUSTIFICATION:				
This conversion of M16A1 Rifl supplement receipts from new retaining two ammunition type year contracts.	This conversion of M16A1 Rifles to the M16A2 version will: accelerate fielding of the M16A2 Rifle, serve as a second source of M16A2 Rifles to supplement receipts from new rifle contractors, reduce storage costs of M16A1 Rifles displaced by newly fielded M16A2s and reduce the need for retaining two ammunition types in the field for two rifle types. FY95 funds are for installation costs. Modification kits are being delivered from prior year contracts.	f the M16A2 Rifle, serve Rifles displaced by newly installation costs. Modif	as a second source of M fielded M16A2s and red ication kits are being deli	16A2 Rifles to uce the need for vered from prior
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTO	VELOPMENT MILESTONES:			
		PLANNED	ACCOMPLISHED	
Development/Operational Test	Test	N/A		
Type Classification		N/A		
First Production Hardware Delivered	e Delivered		2092	
Last Production Hardware Delivered	3 Delivered	2097		

Kit Quantity

RDT&E

Equipment

FY 1586	Installation Schedule: M16A1 to M16A2 Conversion TBD3	le: M16A	1 to M	16A2	Con	/ersio	n TBD	9								В	Date		Feb	February 1997	2			
8 Prior 1 2 3 4 1 3 4 1 3 3 4 1 3 3 4 3 4 3 4 3 4 3		FY 1996	£	1997			F	1998			F	1999			FY 2(000			FY 2(101				
8 Prior (18500 4000 2000) FY 2000 FY 2001 FY 2001 FY 2005 FY 2004 FY 2005 1 2 3 4 1 3 3 4 3 3 4 3							C/E		4	-	⊘ I	m	41	-	C)	(7)	4	-	C)	co	4			Tot
8 Prior 11930 4000 2000 FY 2000 FY 2001 FY 2001 FY 2002 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1	Inputs															l	ı	i	!	ı	ı			
R Prior resson 4000 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2	FY 1996 & Prior	109300 400	10 2000	(44
# Prior uses 4000 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 1997																							-
8 Prior (1920) 4000 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	0007																							
# Prior (1920) 4000 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 1998																							
R Prior 107000	FY 1999																							
# Prior 100500 4000 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2																								
8 Prior 140000 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4	Outputs																							
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005	FY 1996 & Prior	109300 400	0 2000	_																				
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	FY 1997																							15
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3	FY 1998																							
FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1	0007.71																							
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3	6661 11																							
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 3 3 4 3 4			FY 20	00			FY 20	5			FY 200	72			-Y 2003				Y 2004			F	2005	
						+	2			-	S		4	-	2	က	4	-	2		4	-	2	4 Tota
+γ 2000 +γ 2002 +γ 2003 γ 2000 γ 2001 γ 2002 γ 2003 γ 2003 γ 2003 γ 2003 γ 2003	nputs																							
=Y 2001 =Y 2002 =Y 2003 =Y 2003 =Y 2000 =Y 2000 =Y 2002 =Y 2002 =Y 2003 =Y 2003	=Y 2000																							
-Y 2002 -Y 2003 -Y 2003 -Y 2000 -Y 2000 -Y 2002 -Y 2002 -Y 2003 -Y 2003 -Y 2003	-Y 2001																							
=Y 2003 Ty 2000 =Y 2000 =Y 2002 =Y 2003 =Y 2003 =Y 2003 =Y 2003	=Y 2002																							
Ty 2000 -Y 2001 -Y 2002 -Y 2003 -Y 2003 -Y 2003 -Y 2003 -Y 2003 -Y 2003 -Y 2003 -Y 2003 -Y 2003 -Y 2003	-Y 2003																							
5 Juputs -Y 2000 -Y 2001 -Y 2002 -Y 2003 -Y 2003 -Y 2003																								
=Y 2000 =Y 2001 =Y 2002 =Y 2003 =Y 2003	Outputs																							
=Y 2001 =Y 2002 =Y 2003 =Y 2003	=Y 2000																							
=Y 2002 =Y 2003 	-Y 2001																							
-Y 2003 Gemarks:	=Y 2002																							
Remarks:	=Y 2003																							
	Remarks:							Ī																



						DATE		
	BUE	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	ш			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	4S /Weapons and Other Co	embat Vehicles		WO	MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV (GC0925)	\$2.0M (WOCV-WTCV (GC0	925)
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	1.3	1.4	1.4	1.4	1.3	1.3	1.4	1.4

DESCRIPTION: Provides for modification of Weapons and Other Combat Vehicles with a cost less than \$2.0 Million.

JUSTIFICATION: Funds will provide machine gun optic sights for the 5.56mm M249 Light Machine Gun and 7.62mm Medlum Machine Guns. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system.

DATE		MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV (GC0925)
BUDGET ITEM JUSTIFICATION SHEET	PPROPRIATION / BUDGET ACTIVITY	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles



	Ž	MODIFICATION INSTALLATION SUMMAFIDATE	ATION IN	ISTALL	ATION S	UMMAF	Date		
			(TOA, Dollars in Millions)	ollars in	Millions)			February 1997	7
	ă								
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	EY 2000	FY 2001	FY 2002	FY 2003	TOTAL
n ESS THAN \$2.0M (WOCV-WTCV)	*								
M198 Howitzer System Improvement	2.4			0.0	0.0	0.0		0.0	3.0
Machine Gun Optics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	2.4	9.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0

M198 Howitzer System Improvement TBD1 D: M198 Howitzer, Medium Towed		INDIVIDUAL MODIFICATION	Date	Fehrian 1997
MODELS OF SYSTEMS AFFECTED: M198 Howitzer, Medium Towed DESCRIPTION / JUSTIFICATION:		M198 Howitzer System Improvement TBD1		inco Amora
DESCRIPTION / JUSTIFICATION:	MODELS OF SYSTEMS AFFECTED:	M198 Howitzer, I		
DESCRIPTION / JUSTIFICATION:				
	DESCRIPTION / JUSTIFICATION:			

improve the retention of hardware and improve equilibrator adjustment. The areas of improvement were a result of M198 fielded system review. Improvements in ram, handling maneuverability, durability of parts, a reduction in operator fatigue and increased users satisfaction is expected. The purpose of the Materiel Change (MC) is to improve the reliability of the M198 System, improve the brake system, reduce operator fatigue,

DEVELOPMENT STATUS / MA IOD DEVELOPMENT WE FOTONICO.			
CLASSIC CONTROL OF THE STREET			
	PLANNED	ACCOMPLISHED	
MC Project Initiated		2086	
Test Inliated			
		10,88	
Independent Evaluation Completed		1088	
IPR/Production Decision			
		3088	
Production Contract Awarded		1089	
First Production Hardware Delivered		3081	
MFA/MWOFP Nanntlated			
		3091	
First Kit Applied		3091	
Last Kit Applied	1098		
Collective Evaluation Completed			
	4098		

					QNI	VIDUAL	MODIF	INDIVIDUAL MODIFICATION	Z							Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		Σ	198 H	owitze	r Syst	lml me	oroven	M198 Howitzer System Improvement TBD1	BD1											
FINANCIAL PLAN: (\$ in Millions)		1006																		
	and	and Prior	FY 1997	997	FY 1998	198	FY 1999	66	FY 2000	00	FY 2001	10	FY 2	302	FY 2003	600	TC	0	10	TOTAL
	ğ	69	Q.	\$	Qŧ	\$	Qty		Qf	€9	Of Of	8	Oty \$	69	Qty	49	Qfy	€	Q	69
RDT&E PROCUREMENT																				
Kit Quantity	739																		739	
Installation Kits																				
Installation Kits Nonrecurring																				
Equipment Monrecuring		0 755																		9.755
Engineering Change Orders		1.616																		1.616
Data																				
Training Equipment														•						
Support Equipment							•••••		<u>. </u>											
Fielding		0.071															•			0.071
Interim Contractor Support																•				
Installation of Hardware																***				
FY 1996 & Prior Eqpt Kits	673	2.388	99	0.627															739	3.015
FY 1997 Eqpt Kits																				
FY 1998 Eqpt Kits										-										
FY 1999 Eqpt Kits																				
FY 2001 Eapt Kits																				
FY 2002 Eqpt kits		794																		
FY 2003 Eqpt kits													_							
(FY(1C) Eqpt (xx kits) Total Installation Cost	673	2.388	99	0.627			-												739	3.015
Total Procurement Cost						П				П										14.457
METHOD OF IMPLEMENTATION: Depot	N: Depot	FV 1997.	ĸ		ADMINI	STRATI	ADMINISTRATIVE LEADTIME: FY 1998	DTIME:		2	Months		PRODUCEY 1999:	CTION	PRODUCTION LEADTIME: FY 1999:	IME:		Months		
Delivery Date:		FY 1997:	: ~:			_	FY 1998:					Ī	FY 1999:							

R Prior 1 2 3 4 1 3 4 1 3 3 4 1 3 4 1 3 3 4 1 3 4 1 3 3 4 1 3 4 1 3 3 4 1 3 4 1 3 3 4 3 3	Reflor 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3	Installation Schedule:		M198 Howitzer System Improvement TBD	Howil	zer S	yster	n Imp	rovem	ent 7	BD1							0	Date		Feb	February 1997	26				
Retion 673 17 17 18 14 Retion 673 4 10 17 18 14 FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2004 FY 2	8 Prior 673 17 17 18 14 2 3 4 1 <		FY 199	و	Ţ	1997			Ŧ	1998			Ŧ	1999			FY 2(00			FY 2	100					
8 Prior 673 17 17 16 14 8 Prior 673 4 10 17 16 17 1 2 3 4 1	FY 2005 4 1 2 3 4 II		& Pric		C)	(C)			⊘ ŧ	(7)	41	-	CI	ന	41		CV.	m	4	-	N	ო	4				Total
8 Prior 673 17 17 18 14 8 Prior 673 4 10 17 18 17 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1	8 Prior 673 17 17 18 14 8 Prior 673 4 10 17 18 17 1 2 3 4 1 2	Inputs															ı	ı	i	i		i	i				NA.
8 Prior 673 4 10 17 18 17 FY 2005 FY 2007 FY 2007 FY 2007 FY 2008 FY 2004 FY 2005 4 II 2 3 4 1 2 3 4 II 2 3 4	8 Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1	FY 1996 & Prior	49					4																			730
8 Pilor 673 4 10 17 18 17 FY 2000 FY 2001 FY 2003 FY 2004 FY 2005 1 2 3 4 1	8 Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1	FY 1997																									Ś
8 Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1	FY 1998																									
8 Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	# Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1	FY 1999																			-						
8 Prior 673 4 10 17 18 17 FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 1 2 3 4	# Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1																										
8 Pilor 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 II.	# Prior 673 4 10 17 18 17 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1	Outputs																									
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 1996 & Prior	29						7																		100
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 1997																									20
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 1998																									
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 3 3 4 3 4	FY 1999																									
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3																										
1 2 3 4 1 2 3 4	1 2 3 4 1 2 3				FY 20	00			FY 20	101			FY 20(02			FY 2003				=Y 2004			ш	-Y 200!	10	
	standard is a consult of transfer of finantian from 1 the consult of transfer of financian from 1 the consult of transfer of financian from 1 the consult of transfer of financian from 1 the consult of transfer of financian from 1 the consult of transfer of t			_	cu			4	-			_	Ø			-	Ø	ო	4		Ø		4	-	8	C.	
FY 2000 FY 2002 FY 2003 FY 2003 FY 2000 FY 2000 FY 2000 FY 2000 FY 2000 FY 2000 FY 2000 FY 2000 FY 2000 FY 2000 FY 2000	FY 2000 FY 2002 FY 2003 FY 2000 FY 2000 FY 2000 FY 2000 FY 2001 FY 2001 FY 2002 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2004 FY 2003 FY 2003 FY 2004 FY 2005 FY 200	Inputs																						•	l)	
FY 2001 FY 2002 FY 2003 FY 2000 FY 2000 FY 2000 FY 2000 FY 2002 FY 2003 FY 2003 FY 2003	FY 2002 FY 2003 FY 2003 FY 2000 FY 2000 FY 2001 FY 2002 FY 2003 FY 200	FY 2000																									
FY 2002 FY 2003 Outputs FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 FY 2003	FY 2002 FY 2003 FY 2000 FY 2000 FY 2000 FY 2002 FY 2003 Remarks:	FY 2001																									
FY 2003 Cutputs FY 2000 FY 2001 FY 2002 FY 2003 FY 2003	FY 2003 FY 2000 FY 2001 FY 2001 FY 2003 FY 2003 Remarks:	FY 2002																									
Outputs FY 2000 FY 2001 FY 2003 FY 2003 Remarks:	Outputs FY 2000 FY 2001 FY 2002 FY 2003 Remarks: Annihation calculations to consist at some facility and inclinations are some facility and inclinations are some facility and inclinations are some facilities.	FY 2003																									
Outputs FY 2000 FY 2001 FY 2002 FY 2003 FA 2003 Remarks:	6 Outputs FY 2000 FY 2002 FY 2003 Remarks:																			•							
FY 2000 FY 2001 FY 2002 FY 2002 FY 2003 FY 2003	FY 2000 FY 2002 FY 2003 FY 2003 Annihodina adjustment in granufaction of funding forms and adjustment in granufaction of funding adjustment in granufaction of g	Outputs																									
FY 2001 FY 2002 FY 2003 Remarks:	FY 2002 FY 2003 Remarks: Annihostina adjustment in a remit of transfer of funding from 1 and 1 a	FY 2000																									
FY 2002 FY 2003 FY Emarks:	FY 2002 FY 2003 Remarks:	FY 2001																									
FY 2003 Remarks:	Remarks: Annihosing schietmant in a ramili of transfer of funding from 1 the Control of transfer of funding from 1 the Control of transfer of funding from 1 the Control of transfer of transfer of funding from 1 the Control of transfer	FY 2002																									
Remarks:	Remarks: Annipatina adjustment in a remain of function from I attacked to the Contract of the	FY 2003																									
	Annipolina extension of a country of function from I attachment A man Park 1. A miles in a contract of a contract	Remarks:																									



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	INDIVIDUAL MODIFICATION		Date February 1997	
MODIFICATION TITLE:	Machine Gun Optics TBD2			
MODELS OF SYSTEMS AFFECTED:	M249 Squad Automatic Weapon; M60 Machine Guns	guns		
DESCRIPTION / JUSTIFICATION:				
The Machine Gun Optic Progra Guns. The optic sight will allow	The Machine Gun Optic Program provides an optic (telescopic) sight for the 5.56mm M249 Light Machine Gun and 7.62mm Medium Machine Guns. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system.	mm M249 Light Machine Gun ffectively than the existing iron	n and 7.62mm Medium Machin sighting system.	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES:			
		PLANNED	ACCOMPLISHED	
Develo	Development/Operational Tests	2097		
Туре С	Type Classification	4Q97		
Produc	Production Contract Award	4Q97		
First Pa	First Production Hardware Delivered	1098		
First U	First Unit Equipped	2098		

				IND	IVIDUA	. MODIF	INDIVIDUAL MODIFICATION	7						Date		Februs	February 1997	
MODIFICATION TITLE (Cont):	V	Aachin	Machine Gun Optics TBD2	Optics	TBD	<u>.</u>												
FINANCIAL PLAN: (\$ in Millions)	FY 1996																	
	d Pr	ΕY	FY 1997	FY 1998	866	FY 1999	66	FY 2000	-	FY 2001	F	FY 2002	FY	FY 2003	TC	0	TOTAL	A
	Oty \$	Qty	\$	Oţ	69	δ	8	Offy	\$	Oty \$	Qty	\$	ð	8	Ş	69	₽	69
PROCUREMENT	2.758							***										2.758
Quantity		876		1807		1790		1579		1563		***			3285		11000	
Installation Kits						:				3					6999		0001	
Installation Kits Nonrecurring																		
Equipment			0.577		1.173		1.163	-	1.027	1.017	7					2.758		7.715
Equipment Nonrecurring		-														0.250		0.250
Engineering Support			0.114		0.143		0.143	o.	0.143	0.144	4					0.050		0.737
Testing			0.075		0.050	_	0.050	Ö	0.050	0.050	0					0.020		0.295
Integrated Logistical Support			0.017		0.020		0.019	0	0.020	0.020	0					0.020		0.116
Fielding			0.017		0.020	_	0.020	ő	0.020	0.020	0							0.097
Other																		
Interim Contractor Support																		
Installation of Hardware								-										
FY 1996 & Prior Eqpt Kits	_			-			-											
FY 1997 Eqpt Kits		876		9				•									876	
FY 1998 Eqpt Kits	_			1807								-					1807	
FY 1999 Eqpt Kits				ı		1790		******									1700	
FY 2000 Eqpt kits	_		-					1579									1579	
FY 2001 Eqpt kits									15	1563							1562	
FY 2002 Eqpt kits						,,,,			!	}							200	
FY 2003 Eqpt kits																		
(FY(TC) Eqpt (xx kits)															3385		3385	
Total Installation Cost		876		1807		1790	-	1579	15	1563					3385		11000	
Total Procurement Cost			0.800		1.406	-	.395	1.2	1,260	1.251	1					3.098		9.210
METHOD OF IMPLEMENTATION: Unit Application	Unit Application		4	DMINIS	TRATIV	ADMINISTRATIVE LEADTIME:	TIME:		1 Months	ths	PROD	PRODUCTION LEADTIME:	LEADT	IME	4	Months		
Contract Dates:	FY 1997:		Sep-97		L i	FY 1998:					FY 1999;	39:						
Delivery Date:	FY 1897.		Dec-3/		1	FY 1998:					FY 1999:	36:						



FY 1966 FY 1977 FY 1989 FY 2000 FY 2001 & Prior 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3	FY 1987 FY 1989 FY 2000 FY 2001 FY 2000 FY 2001 FY 2001 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2007 FY 2006 FY 2007	Installation Schedule:	Machine	
R Prior 1 2 3 4 1 2 </th <th>8 Prior 1 2 3 4 1 3 4 1 3 3 4 4 1 3 3</th> <th></th> <th>FY 1999 FY 2000</th> <th></th>	8 Prior 1 2 3 4 1 3 4 1 3 3 4 4 1 3 3		FY 1999 FY 2000	
8 Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2005 FY 200	8 Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2005 FY 2006 FY 200		1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3	Total
8 Prior 1 2 3 4 1 2 3	8 Prior PY 2000 FY 2001 FY 2002 FY 2009 FY 2004 FY 2005 1 2 3 4 1 2 3	Inputs		
8 Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 Z 3 4 1 Z 3	# Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3	FY 1996 & Prior		
# Prior	8 Prior FY 2000 FY 2001 FY 2002 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 1997		
# Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2004 FY 2005 FY 2006 FY 2005 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2007 FY 2007 FY 2007 FY 2005 FY 2006 FY 2007 FY 200	8 Prior FY 2000 FY 2001 FY 2002 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	FY 1998		
8 Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	8 Prior FY 2000 FY 2001 FY 2002 FY 2004 FY 2005 1 2 3 4 1 3 3 4 1 3 3 3 4 1 3 3 4 1 3 3 3 4 1 3 3 3 4 1 3 3 3 3	FY 1999		
8. Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	8 Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1			
8 Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	8 Prior FY 2000 FY 2001 FY 2002 FY 2003 FY 2005 FY 2005 1 2 3 4 1 2 3	Outputs		
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 1996 & Prior		
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3	FY 1997		
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 3 3 4 3 3 4 3 3 3 4 3 3 3 4 3	FY 1998		
FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 1 2 3 4 1 2 3	FY 2000 FY 2001 FY 2005 FY 2005 FY 2005 1 2 3 4 1 2 3	FY 1999		
FY 2000 FY 2001 FY 2003 FY 2004 FY 2005 FY 2005 FY 2006 FY 2005 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2006 FY 2007 FY 200	FY 2000 FY 2005 FY 2006 FY 200			
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 4	1 2 3 4 1 2 3		FY 2001 FY 2002 FY 2003 FY 2004	
			2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2	4 Total
		nputs		
		-Y 2000		
		-Y 2001		
		=Y 2002		
		=Y 2003		
		Jutputs		
		-Y 2000		
		-Y 2001		
		=Y 2002		
		=Y 2003		
		lemarks:	An installation schedule is not required for this modification.	

						DATE		
	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	IEET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	VITY			P-1 ITEM NOMENCLATURE	ш			
PROCUREMENT OF	WPNS & TRKD CMBT VE	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	mbat Vehicles			ITEMS LESS THAN \$2.0N	ITEMS LESS THAN \$2.0M (WOCV-WTCV) (GL3200)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0		0	0	0	0
COST (in millions)	1.1	1.8	1.2	1.2	1.3	1.3	1.4	1.4

maintenance personnel to maintain weapons and combat vehicles, and by Active Army, National Guard, Reserve and ROTC units to perform combat and training missions. The tool/shop equipment has multi-applications and is essential to all levels of weapon and combat vehicle DESCRIPTION: Provides for procurement and assembly of tool/shop sets, small arms, and gun mounts. The items are needed by maintenance. JUSTIFICATION: Required to achieve and sustain required levels of readiness to units providing maintenance support to all small arms (M16,9mm Pistol, 7.62 Machine Gun, etc.), artillery (M102,M119,M198 Howitzers, etc.), air defense (Vulcan, PIVAD, etc.) special weapons, and fire control (Tanks, etc.) organizations. Small Arms Weapons and mounts are required to support AAO shortages, field replacements and training requirements.

WTCV Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TR	INT OF WI	VITY TITLE/NO WPNS & TRKD CMBT VE AND Other Combet Vehicles	A. APPN/BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vahioles	B. WEAPON ITEMS LI	LESS THAN \$2.0M	WEAPON ITEMS LESS THAN \$2.0M (WOCV-WTCV)		C. MANUFACTURER NAME Various	CTURER NAME Various	D. DATE Febn	те February 1997
WTCV	0		FY 96			FY 97			FY 98			FY 99	
Cost Elements	CD	Total	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Oth	UnitCost	TotalCost	Qty	UnitCost
	H	000\$	Each	\$000	000\$	Each	\$000	000\$	Each	\$000	000\$	Each	\$000
1. Tool Set, Field ORD G422 Supply or Depot CO	∢							45	ro	6	40	4	10
2. Shot Gun, 12 Gage G124	∢	120	525		66	420		66	410		100	400	
3. Tool Set, Ammo DS/GS G419 Ordnance Ammo	∢							92	4	23	72	ю	24
4. Shop Equip, Small Arms G337 Repair, Shelter Mtd	∢	107	4	27	404	=	37	444	5	37	456	12	38
5. Shop Equip, Artillery Maint, G348 FM Set N	∢				92	S	15	76	r.	75	80	ro	16
6. Tool Set, Instrument and G371 Fire Control, FM	∢	73	C)	15	70	Ω.	41	135	10	14	143	10	14
7. Shop Set, Small Arms, G385 Field Maint, PCS Set D	∢	145	N	73	Ŧ	N	56	224	4	56	228	4	57
8. Tool Kit, Electronic Maint F072	∢							12	ဇ	4	80	N	4
9. Tool Kit, Electronic Maint F073	⋖							10	10	-	S	ນ	T
10. Shop Set, Small Arms G723 FM, Basic	∢							78	9	13	70	£	14
11. MK 19 Trainer (Stand Alone) PEND	∢				1007	22	46						
12. XM144 Telescope	4	899											
TOTAL		1113			1767			1215			1202		

						DATE		
	BUDG	BUDGET ITEM JUSTIFICATION SHEET	FICATION SHE			February 1997		
APPROPRIATION / BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE	ш			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	S Weapons and Other Co	mbat Vehicles		۵	PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)	RT (WOCV-WTCV) (GC00!	20)
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	5.9	4.3	6.2	6.5	6.4	6.3	6.8	6.9

Description: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish modernize, expand and replace facilities equipment used in production, production testing of Weapons and Tracked Combat Vehicles. Also provides funding for the Layaway of Industrial owned by the Army and provide Production Support and Equipment Replacement (PSR) and Modernization (MOD) to Government owned Facilities (LIF) for preservation of equipment and portions of plants which are no longer required for active production.

Justification: The FY98 and FY99 request includes essential funding for replacement of equipment & instrumentation in production test facilities at Aberdeen, Yuma Proving Grounds, and White Sands Missile Range (WSMR). Funding also supports layaway of industrial equipment which is excess to production requirements at Rock Island and Watervliet Arsenals.

FY 1999	3.594	6.540
FY 1998	3.473	6.195
FY 1997	1.478	4.311
FY 1996	3.215 2.640	5.855
	분	TOTALS

	Produc	Production Support and Facilities Projects	vQ	DATE	February 1997	
APPROPRIATION / BUDGET ACTIVITY	GET ACTIVITY	P-1	P-1 ITEM NOMENCLATURE			
PROCUREMEN	AT OF WPNS & TRKD CME	PROCUREMENT OF WPNS & TRKD CMBT VEHS Meapons and Other Combat Vehicles	PRODUCTION	PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)	WTCV) (GC0050)	
PROJECT NO.	TYPE	NAME/LOCATION	FY 1996	FY 1997	EY 1998	FY 1999
09X5263	МОБ	Combat Systems Testing Activity (CSTA) Aberdeen Proving Ground	1.360	0.600	1.470	1.613
Provides funds to re	aplace, modemize an	Provides funds to replace, modernize and upgrade equipment and		-		
instrumentation use Fire Support Vehicle	ed in production testir 9. M1 Tank. M2/M3 B	Instrumentation used in production testing of WTCV, such as the M981 Fire Support Vehicle, M1 Tank. M2/M3 Bradiev Flohting Vehicle. 105MM				
and 120MM cannon	and 120MM cannons. Upgrading will be performed on	performed on automotive				
performance Test E	quipment, vehicle dy	performance Test Equipment, vehicle dynamics, high speed imaging, interior				
exterior ballistics su	pport instrumentation	exterior ballistics support instrumentation, and toxic fumes instrumentation.				
09X5268	MOD	Yuma Proving Grounds	1.214	0.600	1.464	1.450
Provides funds to re	place, modernize and	Provides funds to replace, modernize and upgrade equipment and				
instrumentation use	instrumentation used in production testing of WTCV.	ig of WTCV. The funding will				
also provide teleme	try data collection inte	also provide telemetry data collection interfaces, Weapons firing				
instrumentation, and	instrumentation, and video instrumentation enhancements.	on enhancements.				
09X5269	PSR	White Sands Missile Range	0.641	0.278	0.539	0.531
Provides funds to re	place, modernize and	Provides funds to replace, modernize and upgrade the test and evaluation		,		
mission for producti	on testing at WSMR.	mission for production testing at WSMR. The equipment/Instrumentation includes:				
the Linear Accelerat	tor (LINAC) which sin	the Linear Accelerator (LINAC) which simulates high-intensity gamma spikes		-		
of a nuclear weapon	n detonation, equipme	of a nuclear weapon detonation, equipment used to support electromagnetic				
radiation effects test	ling, and equipment to	radiation effects testing, and equipment to monitor the air activity at facilities				
where materiel is ag	where materiel is against a radiation source.	.eo.				•••

Production Support and Facilities Projects		DATE	February 1997	
APPROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE			
PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	PRODUCTIC	PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)	WTCV) (GC0050)	
PROJECT NO. TYPE NAME / LOCATION	FY 1996	EY 1997	FY 1998	FY 1999
Equipment, Rock Island & Watervillet Arsenals Equipment, Rock Island & Watervillet Arsenals Provides funds for preservation of equipment and portions of plants which are no longer required for active production, but must be retained for future use. Also provides for plant clearance and preparation of equipment to be excessed.	2.640	. 5.833	2.722	2.946

Exhibit P-15 Production Support and Fa

						DATE		
	BUDG	BUDGET ITEM JUSTIFICATION SHEET	FICATION SHE	ET		February 1997		
APPROPRIATION / BUDGET ACTIVITY	YTIVITY			P-1 ITEM NOMENCLATURE	130			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	HS /Weapons and Other Co	embat Vehicles			INDUSTRIAL PREP	INDUSTRIAL PREPAREDNESS (GC0075)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	5.3	5.1	5.8	5.7	6.2	6.1	6.6	9.9

grounds, utilities, fire and guard protection. Also includes funding for condition assessments of laidaway facilities and costs to rehabilitate equipment to useable condition. DESCRIPTION: This program provides funding to retain, protect, and maintain laidaway reserve industrial plants and equipment. Costs include

JUSTIFICATION: The FY98 and FY99 request supports equipment and facilities at Rock Island & Watervliet Arsenals. Funds also support some of the retention, maintenance and the cost for guard protection at the M-1 facilities which are not being utilized at the Detroit Arsenal Tank Plant.

A summary listing of projects is attached.

Production Support and Facilities Projects	DATE		February 1997	
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT OF WPNS & TRKD CMBT VEHS //Weapons and Other Combat Vehicles	P-1 ITEM NOMENCLATURE INDUSTRI	INDUSTRIAL PREPAREDNESS (GC0075)	GC0075)	
PROJECT NO. TYPE NAME/LOCATION	FY 1996	FY 1997	FY 1998	FY 1999
G9X2100 Plant Equipment Storage, Seneca Army Depot Provides for storage and maintenance of equipment which is being retained at Seneca to meet future production requirements. It also provides for depot personnel who perform condition	1.049	0.115		
Government and contractor storage sites. 49X4290 Retention & Maintenance - Facilities	2.182	2.200	2.879	2.856
Provides for storage of equipment for future production. Also provides funding to maintain grounds, buildings and provide fire/guard protection for inactive portions of tracked vehicle production facilities.				
69X7670 Retention & Maintenance Plants and Equipment Watervilet & Rock Island Arsenals. Provides for overhead costs attributed to laidaway portions of the arsenals. Also funds storage and maintenance costs of equipment which has been laidaway for future production.	2,052	2.771	2.879	2.857

			-			DATE		
	BUD	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	VITY			P-1 ITEM NOMENCLATURE	Ц			
PROCUREMENT OF	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Weapons and Other Combat Vehicles	S /Weapons and Other Co	embat Vehicles			SMALL ARMS (SOLDIER ENH PROG) (GC0076)	RENH PROG) (GC0076)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	2.4	5.8	4.2	5.6	6.5	6.9	2.5	2.0

M60 Machine Gun from the M998 HMMWV and a mount for firing the M249 from the M1025/1026 HMMWV. The Dual Mount can be used in both the Thermal Systems. The HMMWV Mount provides the soldier with a pedestal and a mount for firing the M249 Squad Automatic Weapon (SAW) and vehicular (M1025/1026 HMMWV) and ground mount application for the MK19 Grenade Machine Gun (GMG) and M2 Heavy Barrel Machine Gun. The Boresight Aiming & Thermal System provides the soldier with a small arms muzzle boresight with capabilities to boresight visible day, night DESCRIPTION: This program provides small arms equipment for the soldier, a HMMWV Mount, Dual Mount and a Boresight for Aiming and mage intensifiers and forward looking infrared fire control sighting systems and infrared laser aiming devices.

platoons enabling them to install or switch weapons quickly in the event one vehicle goes down. Additionally the system corrects the shortcomings of Machine Gun and capability for range card preparation. The U.S. Army will now have the capability to boresight forward looking infrared and image The field has devised several non-standard and possibly unsafe methods of mounting weapons on the M998. This program will provide a standard, JUSTIFICATION: Certain applications of the M998 HMMWV require that weapons be displayed and be available quickly for enemy confrontation. the current MK64 system allowing for bold and accurate traverse and elevation, further range (elevation) for the MK19, recoil attention of the M2 supportable weapon mount. Military Police and certain infantry units currently mount the M60 Machine Gun on the M1025/1026. As the M60 is replaced by the M249 Machine Gun the need to mount the M249 on the M1025/1026 HMMWV arises. The Dual Mount will be fielded to scout intensifier laser aiming devices.

nalysis

WTCV Cost Analysis	_	A. APPN / BUDGET ACTIVITY TITLE/NO PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2.	T OF WP	TITLE/NO NS & TRKD CA	MBT VEHS/2/	B. WEAPON	MS (SOLDIER	B. WEAPON SMALL ARMS (SOLDIER ENH PROG) (GC0076)		C. MANUFACTURER NAME		D. DATE Febru	TE Fehniary 1997
WTCV	9	Weap	EV 96	Weapons and Other Combat Vehicles	phicles	EV 07							
Cost Elements	8	TotalCost	À	InitCoet	TotalCoot) A	1000		FY 98			FY 99	
	İ	\$000	Each	\$	#OOOS	Hack dock	Ornicosi	OGGICOST	S Tool	UnifCost	otalCost	5	UnitCost
1. Hardware MK93 MOD 1 DUAL MOUNT		1.600	776	2.062	1.600	998	1.848		Laci	e l	000	Each	æ
HMMWV M249 Mount M998 (Quantity)		0.197	120	1.642	1.254	099	1.900	1.362	099	2.063			
M1025/1026 (Quantity)		0.036	80	0.445	0.660	1320	0.500	0.717	1320	0.543	0.720	1320	0.545
Boresight for Aiming & Thermal Sights						* 17.*					3.000	3000	1.000
2. ESIP Dual Mount HMMWV M249 Mount Boresight for Aiming & Thermal Sights		0.225			0.275			0.450			0.250		
3. Testing Dual Mount HMMWV M249 Mount Boresight for Aiming & Thermal Sights		0.050			0.450			0.550			0.350		
 Integrated Logistics Support Dual Mount HMMWV M249 Mount Materiel Release/Engineering Studies Boresight for Aiming & Thermal Sights 		0.025 0.047 0.053			0.050 0.153 0.794			0.189			0.100 0.366 0.075		-
5. Fielding Dual Mount HMMWV M249 Mount Boresight for Aiming & Thermal Sights					0.075	···		0.230			0.100		
TOTAL		2.350			5.839			4.178			5.598		



Procurement	and Planning
Exhibit P-5A	History

BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANN	ORY AND PLANNING EXHIBIT (P-5A)					DATE Fe	February 1997	997
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	Æ			
PROCUREMENT OF WPNS & TR	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles	ar Combat Vef	ricles			SMALL ARMS	SMALL ARMS (SOLDIER ENH PROG) (GC0076)	PROG) (G	(92000	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	OTV	UNIT COST	SPECS AVAIL NOW	SPEC REV	IF YES W/A
DUAL MOUNT/FY96	Fraser Maunfacturing Corp	C/FFP	ACALA	May-96	May-97	776	2827		-	Aug-95
DUAL MOUNT/FY97	Fraser Maunfacturing Corp	C/FFP	ACALA	Apr-97	Jan-98	998	2827			
HMMWV M249 MOUNT/FY96 M6 Pedestal	Ramo Manufacture Inc. Nashville, Tn	C/FFP	ARDEC	Jul-96	Apr-97	120	1200	Yes	Š	
M197 Mount	Nautic-All	C/FFP	ARDEC	Aug-96 Mar-97	Mar-97	200	445			
HMMWV M249 MOUNT/FY97 M6 Pedestal	Ramo Manufacture Inc. Nashville, Tn	C/FFP	ARDEC	May-97	Nov-97	099	1400			
M197 Mount	Nautic-All	C/FFP	ARDEC	May-97 Nov-97	Nov-97	1980	200			
HMMWV M249 MOUNT/FY98 M6 Pedestal	Ramo Manufacture Inc. Nashville, Tn	C/FFP	ARDEC	Jan-98	Jul-98	099	2063			
M197 Mount	Nautic-Ail	C/FFP	ARDEC	Jan-98	36-Jnr	1980	543			
HMMWV M249 MOUNT/FY99 M6 Pedestal	Ramo Manufacture Inc. Nashville, Tn	C/FFP	ARDEC	Jan-99	96-Inc	0				
M197 Mount	Nautic-All	C/FFP	ARDEC	Jan-99	96-Inc	1320	545			
M998 HMMWV requires 1 M6 Pedestal and 1 M197 Mount M1025/1026 HMMWV requires 1 M197 Mount	nut									
REMARKS:										

	BUDGET PROCUREMENT HISTORY AND	PLANNIN	RY AND PLANNING EXHIBIT (P-5A)					DATE Feb	February 1997	
B. APPROPRIATION / BUDGET ACTIVITY					C, P-1 ITEM N	C, P-1 ITEM NOMENCLATURE	Щ			Γ
PROCUREMENT OF WPNS & TE	PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles	er Combat Vehic	les			SMALL ARMS	SMALL ARMS (SOLDIER ENH PROG) (GC0076)	ROG) (GC0	(920	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST OF IVERY	OTV Fach	UNITCOST	SPECS S AVAIL	SPEC IF Y REV	IF YES W/A
BORESIGHT for AIMING and THERMAL SYSTEMS (BATS)/FY99	TBS		TBS	Aug-99	May-00	3000	000	2 2	<u>8</u>	
HEMAHKS:										





						DATE		
	BUDG	BUDGET ITEM JUSTI	<i>TIFICATION SHEET</i>	ET		February 1997		
APPROPRIATION / BUDGET ACTIVITY	FIVITY			P-1 ITEM NOMENCLATURE	ш			
PROCUREME	PROCUREMENT OF WPNS & TRKD CMBT VEHS /Spares and Repair Parts	BT VEHS /Spares and Rep	air Parts			SPARES AND REPAIR P	SPARES AND REPAIR PARTS (WTCV) (GE0150)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	25.3	20.3	20.6	14.4	14.8	15.2	28.7	29.6

Description: Provides for procurement of spares to support initial fielding of new or modified end items.

Justification: The funds in this account procure depot level reparable (DLRs) secondary items from the Supply Management, Army (SMA) revolving fund (formally Army Stock Fund). To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:

System	FY 1996	FY 1997	FY 1998	FY 1999	
GE0161 M1A2	16.0	9.3	13.9	10.1	
GE0163 BFVS	5.2	9.3	က	1.5	
GE0167 M109	2.4	1.4	3.7		
GE0171 IRV	1.6	က္	œ.	+:	
GEO173 C2V			6.	o.	
GEO177 HAB			6.	o.	
Total Initial Issue	25.3	20.3	20.6	14.4	
Total Replenishment and War Reserve					

14.4

20.6

20.3

25.3

Totals

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

APPROPRIATION LANGUAGE

spare parts, and accessories therefore; specialized equipment and training devices; expansion of public and private plants, and the land poses; \$1,065,707 lin fiscal year 1998 to remain available for obligation until September 30, 2000 and \$1,475,106 in fiscal year 1999 to plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing pur-For construction, procurement, production, and modification of weapons and tracked combat vehicles, equipment; including ordnance, necessary therefore, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private remain available for obligation until September 30, 2001. COMPARISON OF FY 1997 PROGRAM REQUIREMENTS
AS REFLECTED IN THE FY 1997 BUDGET
WITH THE FY1997 PROGRAM REQUIREMENTS AS
SHOWN IN THE FY 1998/1999 BUDGET
SUMMARY OF REQUIREMENTS (In MIIIIons of Dollars)

Procurement of Weapons and Tracked, Requirements Per Combat Vehicles, Army Budget	quirements Per FY1997 Budget	Requirements Per FY1998/1999 Budget	Increase or (Decrease)
Activity 1 - Tracked Combat Vehicles	1,028	1,344	316
Activity 2 - Weapons & Other Combat Vehicles	54	104	20
Activity 3 - Spares and Repair Parts 20	20	20	0
Reimbursable Program	179	179	OI
1,281	1,281	1,647	366

EXPLANATION BY ACTIVITY

Activity 1 - Tracked Combat Vehicles. The increase resulted from Congressional adjustments to Bradley Base Sustainment (+\$100.6), Recovery Vehicle (+\$27.1), M1 Abrams Mods (+13.0), and Armored Earthmover (+\$51.0) as well as adjustments for Sections 8037 and FAASV (+\$29.8), Carrier Mods (+\$20), Bradley Mods (+\$35.5), Howitzer 155mm (+\$31.2), FAASV Pip to Fleet (+\$9.1), Improved 8138 of the FY1997 Appropriations Act (-\$1.7).

(+\$1.0), MK19-3 Grenade Launcher (+\$28.0), Med Machine Gun (+\$20.0), M16 Rifle (+\$1.0), and Carbine M4 (+\$1.0) as well as pro rata Activity 2 - Weapons and Other Combat Vehicles. The increase resulted from Congressional adjustments to Machine Gun, 556mm adjustments for Section 8138 of the FY 1997 Appropriations Act (-0.0).

Activity 3 - Spares and Repair Parts. Not applicable.

Reimbursable Program. Not applicable.

COMPARISON OF FY 1997 PROGRAM REQUIREMENTS SUMMARY OF REQUIREMENTS (In Millions of Dollars) WITH THE FY1998 PROGRAM REQUIREMENTS AS AS REFLECTED IN THE FY 1998/1999 BUDGET SHOWN IN THE FY 1998/1999 BUDGET

Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army	FY 1997 Requirements Per FY1998/1999 Budget	FY 1998 Requirements Per FY1998/1999 Budget	Increase or (Decrease)
Activity 1 - Tracked Combat Vehicles	1,344	966	(348)
Activity 2 - Weapons and Other Combat Vehicles	104	49	(22)
Activity 3 - Spares and Repair Parts	20	21	-
Reimbursable Program	179	146	(33)
	1,647	1,212	(435)

EXPLANATION BY ACTIVITY

Activity 1 - Tracked Combat Vehicles. The decrease is associated with (1) the congressional adjustments (-\$317.2) in FY 1997 (depicted on the preceeding page), (2) one-time funding in FY 1997 for the Life-of-Type buy for the Cummins engine (-\$30.0), (3) end of production funding for the Paladin and FAASV (-\$109.0), (4) LRIP funding for the Bradley Fire Support Team vehicle BFIST (-\$14.0) and increased funding in the Abrams Upgrade program for production cut-in for SEP, Il Generation FLIR, and transfer of OMA resources for the workload at Anniston Army Depot that supports the Upgrade program.

Activity 2 - Weapons and Other Combat Vehicles. The decrease is associated with the congressional adjustments in FY 1997 (-\$51.0), other minor program reductions (-\$9.0), and initiation of the M119 Howitzer modification program (+\$5.0).

Activity 3 - Spares and Repair Parts. Not applicable.

Reimbursable Program. The decrease is a result of an expected decrease in the amount of projected FMS sales.

COMPARISON OF FY 1998 PROGRAM REQUIREMENTS AS REFLECTED IN THE FY 1998/1999 BUDGET WITH THE FY1999 PROGRAM REQUIREMENTS AS SHOWN IN THE FY 1998/1999 BUDGET SUMMARY OF REQUIREMENTS (In Millions of Dollars)

Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army	FY 1998 Requirements Per FY1998/1999 Budget	FY 1999 Requirements Per FY1998/1999 Budget	Increase or (Decrease)
Activity 1 - Tracked Combat Vehicles	966	1,379	383
Activity 2 - Weapons and Other Combat Vehicles	49	.	32
Activity 3 - Spares and Repair Parts	24	14	(7)
Reimbursable Program	146	128	(18)
	1,212	1,602	390

EXPLANATION BY ACTIVITY

Vehicle (\$32.0) and the Bradley Base sustainment (\$217.0); and a ramp in production in the Abrams Upgrade Program for the System Activity 1 - Tracked Combat Vehicles. The increase is the result of a ramp-up of production quantities for the Command and Control Enhancement Program (SEP) (\$99.0); as well as programmatic increase in the Carrier modification program (\$14.0), the Improved Recovery Vehicle (\$12.0), and the Heavy Assault Bridge (\$10.0).

(\$4.1), the MK19-3 Grenade Launcher (\$13.1), the Armor Machine Gun (\$7.0), the M4 Carbine (\$4.5), and modifications for the Carbine Activity 2 - Weapons and Other Combat Vehicles. The increase is associated with increased procurement quantities for the M16 Rifle

Activity 3 - Spares and Repair Parts. The decrease is associated with a reduced requirement for Abrams and Paladin Initial spares.

Reimbursable Program. The decrease is associated with a reduction in anticipated FMS cases.